

Motivations for eWOM exchanges in an online community:

Self-development, problem solving support, relaxation

By

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ABSTRACT

Electronic word-of-mouth (eWOM) has gained significant attention from academics and practitioners since it has become an important source of consumers' product information, which can influence consumer purchase intentions (Cheung & Lee, 2012). eWOM exchanges exist in two types of online communities: online communities of practice and online communities of interest. A few prior studies in online communities of interest have examined members' motivations for product knowledge exchange (Hung & Li, 2007; Ma & Agarwal, 2007). However, there is a lack of understanding of member motivations for exchanging social bonds and enjoyment in addition to exchanging knowledge pertaining to products in the community. It is important to have an initial comprehension of motivation as an antecedent of these three eWOM exchanges so as to be able to determine the driving factors that lead members to generate eWOM communication. Thus, the research problem *"What are the driving factors for members to exchange eWOM in an online community?"* was justified for investigation. The purpose of this study was to examine different member motivations for exchanging three types of eWOM. Resource exchange theory and theory on consumer motivation and behavior were applied to develop a conceptual framework for this study.

This study focused on an online beauty community since there is an increasing trend of consumers turning to online beauty resources so as to exchange useful beauty product information (SheSpot, 2011). As this study examined consumer motivation in an online beauty community, a web-based survey was the most effective and efficient way to gain responses from beauty community members and these members were appropriate samples from which to draw a conclusion about the whole population. Multiple regression analysis was used to test the relationships between member motivations and eWOM exchanges. It was found that members have different motivations for exchanging knowledge, social bonds, and enjoyment related to products: self-development, problem solving support, and relaxation, respectively.

This study makes three theoretical contributions. First, this study identifies the influence of self-development motivation on knowledge exchange in an online community of interest, just as this motivation has previously been found in online communities of practice. This study highlights that members of the two different

types of online communities share similar goals of knowledge exchange, despite the two communities evincing different attributes (e.g., member characteristics and tasks' objectives). Further, this study will assist researchers to understand other motivations identified by prior research in online communities of practice since such motivations may be applicable to online communities of interest. Second, this study offers a new perspective on member motivation for social bonding. This study indicates that in addition to social support from friends and family, consumers are motivated to build social bonds with members in an online community of interest since they are an important source of problem solving support in regard to products. Finally, this study extends the body of knowledge pertaining to member motivation for enjoyment exchange. This study provides a basis for researchers to understand that members in an online community of interest value experiential aspects of enjoyable consumption activities, and thus based on group norms, members have a mutual desire for relaxation from enjoyment exchange.

The major practical contribution is that this study provides an important guideline for marketing managers to develop different marketing strategies based on member motivations for exchanging three types of eWOM in an online community of interest, such as an online beauty community. This will potentially help marketing managers increase online traffic and revenue, and thus bring success to the community.

Although, this study contributes to the literature by highlighting three distinctive member motivations for eWOM exchanges in an online community of interest, there are some possible research limitations. First, this study was conducted in an online beauty community in Australia. Hence, further research should replicate this study in other industries and nations so as to give the findings greater generalisability. Next, online beauty community members are female skewed. Thus, future research should examine whether similar patterns of motivations would emerge in other online communities that tend to be populated by males (e.g., communities focused on football). Further, a web-based survey has its limitations in terms of self-selection and self-reporting (Bhatnagar & Ghose, 2004). Therefore, further studies should test the framework by employing different research methods in order to overcome these weaknesses.

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STATEMENT OF ORIGINAL AUTHORSHIP

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

Signature: QUT Verified Signature

Date: 1/02/2013

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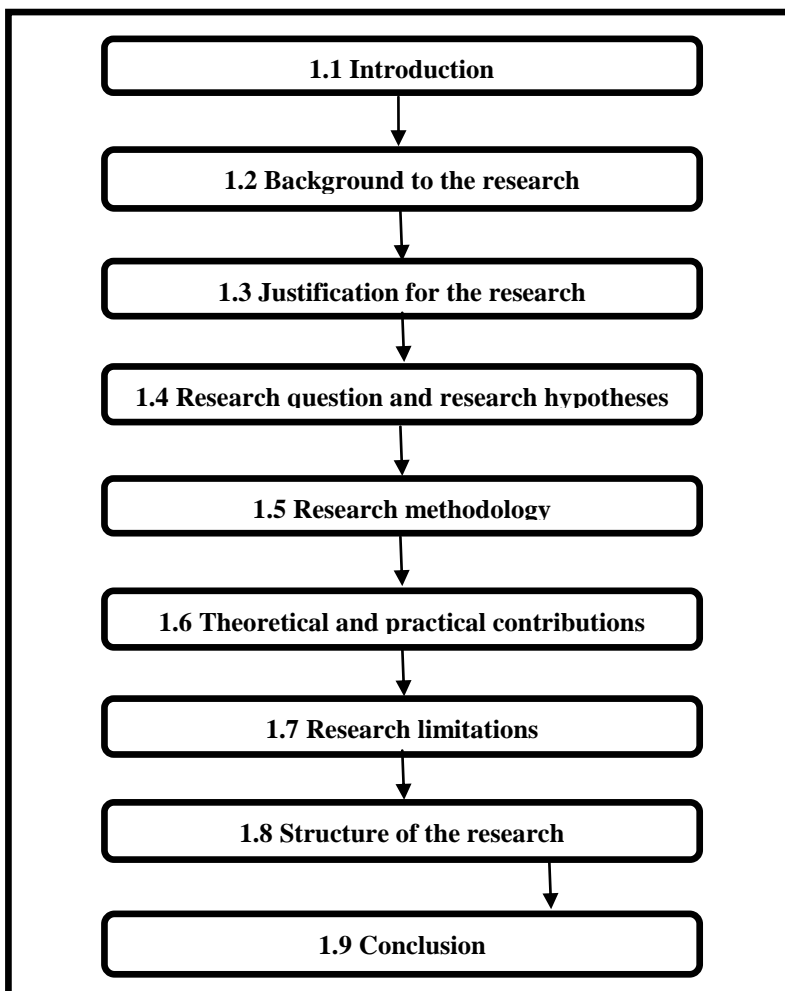
CHAPTER 1

Introduction

1.1 Introduction

Chapter one provides an overall picture of this study, which is organised into nine sections. Section 1.2 provides background to the research. Justification for the research is presented in Section 1.3, followed by the presentation of the research question and research hypotheses in Section 1.4. Section 1.5 gives a brief explanation of the research methodology. Contributions to both marketing researchers and practitioners are presented in section 1.6, followed by a discussion of the research limitations in Section 1.7. The structure of this study is given in Section 1.8 and the conclusion is provided in Section 1.9. The outline of this chapter is presented in Figure 1.1.

Figure 1.1: Outline of Chapter 1



Source: Developed for this research

1.2 Background to the research

The Internet has provided opportunities for consumers to engage in electronic word-of-mouth (eWOM) by sharing their opinions and experiences related to products with others via online media, such as forums in blogs and social networking sites. eWOM has been defined as “any positive or negative statement made by potential, actual, or former customers about a product or company,” (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004, p. 39), and has become increasingly important to consumers, marketers, and researchers for several reasons. For example, consumers can exchange useful information about products and services in online communities where a group of people share the same consumption interests. According to research by Nielson Australian Online Consumer Report 2011-2012, 71 percent of Australian Internet users, participating in online communities, considered consumer feedback about products as an important source of product information influencing their purchase decision making (DigitalMarketingLab, 2012). Additionally, companies continue to fund online marketing in order to reach consumers engaging in online communities, such as Facebook. Worldwide, online advertising spending was worth 4.2 billion dollars in 2012, and it is expected to reach 5.4 billion dollars in 2013 (eMarketer, 2012). Researchers recognise that consumer discussions regarding experiences and recommendations of products generated in online communities have broadened the reach of eWOM, and therefore increasingly researchers have turned their attention to the influence of eWOM (Kozinets, De Valck, Wojnicki, & Wilner, 2010).

1.3 Justification for the research

Researchers have been interested in consumer-to-consumer eWOM exchanges in two types of online communities: online communities of practice (Wasko & Faraj, 2000, 2005) and online communities of interest (Chan & Li, 2010; Fong & Burton, 2006a) (explained in detail in section 2.2.1). Previous studies have focused on investigating three types of eWOM exchanges (knowledge, social bonds, and enjoyment relevant to products) in online communities of interest with regard to the effects of exchanges on various aspects of consumer behaviours, including customer loyalty to the community (Kim, Lee, & Hiemstra, 2004), consumer purchase decisions (Chan & Li, 2010; Cheung, Lee, & Rabjohn, 2008; De Valck, Van Bruggen, & Wierenga, 2009;

Fong & Burton, 2006a; Nelson & Otnes, 2005), and consumer commitment to the community (Brown, Broderick, & Lee, 2007; Chan & Li, 2010). These elements will be discussed in more detail in section 2.4.1.

This study emphasises motivation as the antecedent of eWOM exchanges in online communities of interest due to the following reasons. First, prior studies support that motivation is an important element greatly influencing consumer engagement in eWOM exchanges (Bagozzi & Dholakia, 2002; Gruen, Osmonbekov, & Czaplewski, 2006). Second, in order to make an online community viable, online community providers should understand members' fundamental incentives for online community participation (Wang & Fesenmaier, 2004a). Previous studies of online communities of interest have focused on examining member motivations for knowledge exchange about products (Hung & Li, 2007; Ma & Agarwal, 2007). However, little research is known about what motivates members to share social bonds and enjoyment relevant to products in addition to knowledge in these communities. Social bonds and enjoyment provide intrinsic value for members, which can influence online community usage and participation (Wang, Chung, Park, McLaughlin, & Fulk, 2011), and are considered important sources of eWOM communication (Schindler & Bickart, 2005). It is necessary to have an initial understanding of member motivations, which may differ based on the types of eWOM exchanges, so as to be able to determine the driving factors that lead members to generate eWOM communication, which can affect consumer purchase decisions, customer loyalty and consumer commitment to the community. Thus, this study will encompass these distinctive member motivations for three types of eWOM exchanges in the community.

1.4 Research question and research hypotheses

Based on the justification for the research, this study attempts to provide answers to the following research question:

“What are the driving factors for members to exchange eWOM in an online community?”

This study aims to examine what motivates members to exchange three types of eWOM communication specifically, knowledge, social bonds, and enjoyment relevant to products within an online community of interest. In order to understand the research question, online community of consumption is reviewed from the literature. Additionally, resource exchange theory is applied to understand the types of resources that members exchange in an online community. Furthermore, theory on consumer motivation and behaviour is applied to better comprehend member motivations for three types of eWOM exchanges.

The research hypotheses are developed from a conceptual framework presented in section 2.5. Members may have different motivations for participating in an online community of interest based on the three types of eWOM exchanges. Therefore, the following five hypotheses are proposed to investigate the relationships between member motivations and eWOM exchanges.

Hypothesis 1a. There is a positive relationship between self-development and knowledge exchange in an online community of interest.

Hypothesis 1b. There is a positive relationship between gaining reputation from others and knowledge exchange in an online community of interest.

Hypothesis 2a. There is a positive relationship between problem solving support and social bonding in an online community of interest.

Hypothesis 2b. There is a positive relationship between dissonance reduction after purchase and social bonding in an online community of interest.

Hypothesis 3. There is a positive relationship between relaxation and enjoyment exchange in an online community of interest.

1.5 Research methodology

The research method that is used for this study is a web-based survey. This type of survey is the most effective and efficient quantitative instrument used to solicit online community members with a particular interest in beauty products and tips, to report on their motivations for eWOM exchanges. Also, this study tries to investigate consumer motivation and behaviour in the context of an online community of interest; thus, these members are appropriate samples to address the research question and draw conclusions about the whole population. Further, all items for measuring the types of eWOM exchanges and member motivations are adapted from

previous studies. In addition, based on the data analysis of this study, regression analysis is conducted in order to test the relationships between two variables including member motivations (independent variables) and eWOM exchanges (dependent variables).

1.6 Theoretical and practical contributions

This study makes three theoretical contributions by enabling researchers to have a better understanding of what motivates members to exchange eWOM in an online community of interest. These motivations include sharing social bonds and enjoyment in addition to knowledge related to products, which have not previously been looked at from the prior literature. First, this study identifies the influence of self-development motivation on knowledge exchange in an online community of interest, just as this motivation has previously been found in online communities of practice. This study highlights that members of the two different types of online communities share similar goals of knowledge exchange, despite the two communities evincing different attributes (e.g., member characteristics and tasks' objectives). Further, this study will assist researchers to understand other motivations identified by prior research in online communities of practice since such motivations may be applicable to online communities of interest. Second, this study offers a new perspective on member motivation for social bonding. This study indicates that in addition to social support from friends and family, consumers are motivated to build social bonds with members in an online community of interest since they are an important source of problem solving support (instrumental and empathic support) in regard to products. Finally, this study extends the body of knowledge pertaining to member motivation for enjoyment exchange. This study provides a basis for researchers to understand that members in an online community of interest value experiential aspects of enjoyable consumption activities, and thus based on group norms, members have a mutual desire for relaxation from enjoyment exchange.

The major practical contribution offered by this study is that of providing an important guideline for marketing managers to develop different marketing strategies based on member motivations for exchanging three types of eWOM communication in an online community of interest, such as an online beauty community. For instance, a marketing manager can develop a skill improvement activity, such as

creating a “makeup tutorial” forum in order for members to improve their skills by exchanging knowledge relevant to beauty products with others. Motivations are considered drivers of consumers’ future behavioural intentions, such as consumers’ willingness to recommend products or services to others (Hartley & Harrison, 2009). Thus, a marketing manager will have opportunities to increase online traffic and revenue (e.g., sponsorship and advertisements) from business partners, such as beauty product companies that can potentially expand their marketing exposure and increase their product sales in an online community.

1.7 Research limitations

Although, this study contributes to the literature by highlighting three distinctive member motivations for eWOM exchanges in an online community of interest, there are some possible limitations of this study that need to be considered. The first limitation relates to the industry and country contexts of this study. This study was conducted in an online beauty community in Australia; hence, there is a need to replicate this study in other industry contexts, such as food and drink or movies, and in different country contexts to help give the findings greater generalisability. Next, the majority of samples are female, and thus the findings may not be generalisable due to gender-related behavior (Chan & Li, 2010). Further research should examine whether similar patterns of motivational factors would emerge in online communities of interest that tend to be populated by males, such as motorsport or football online communities. Finally, since a web-based survey was the only instrument used to measure the conceptual framework of this study, the issues of self-selection and self-reporting generally exist in the measurement (Bhatnagar & Ghose, 2004). Hence, further studies should test the framework by employing different research methods in order to overcome these weaknesses.

1.8 Structure of the research

This study consists of five chapters. The detailed structure of this study is demonstrated in Figure 1.2 and is organised as follows:

Chapter 2 develops the research issue regarding member motivations for eWOM exchanges in online communities from a synthesis of literature on online communities and antecedents of eWOM exchanges. In addition, this chapter provides

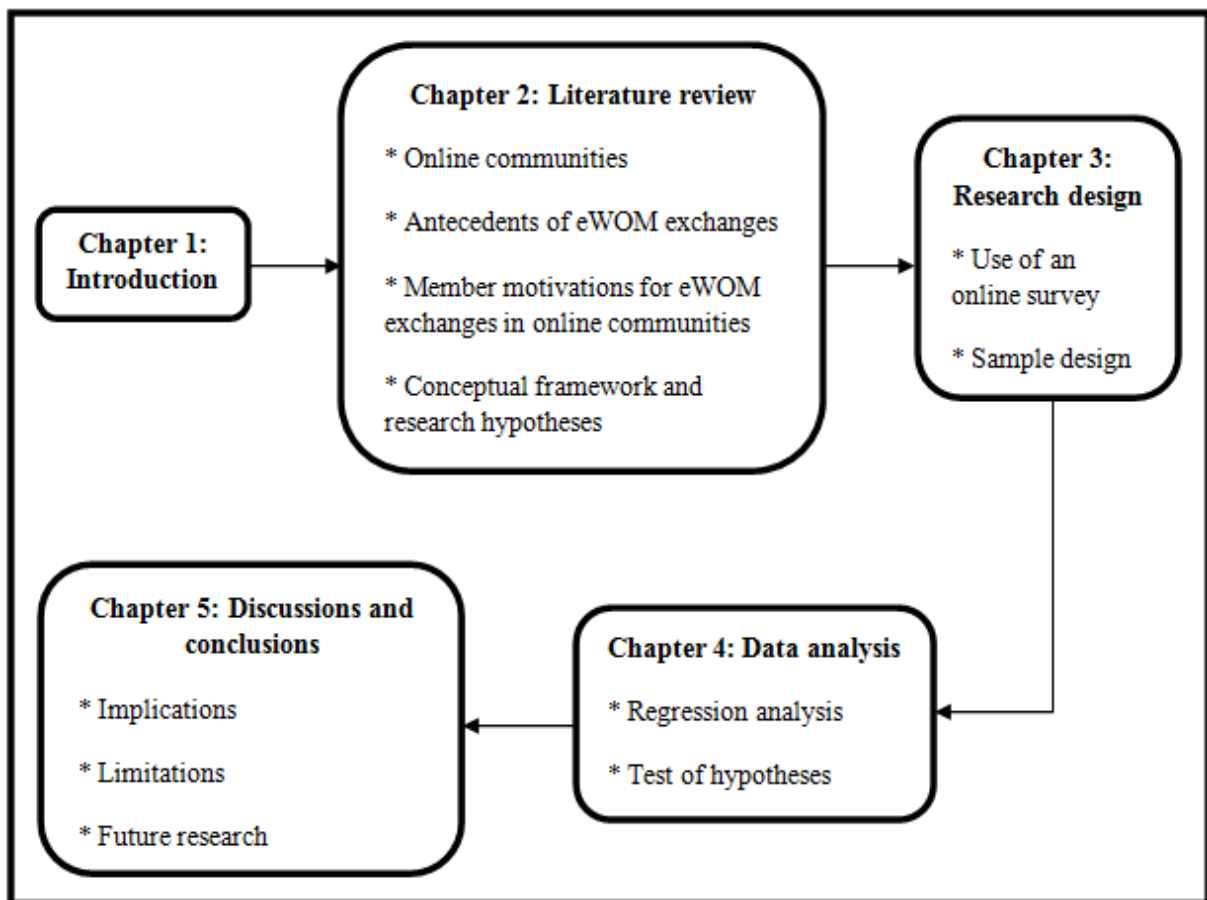
a discussion of previous studies on the effects of eWOM exchanges and a lack of research on member motivations as the antecedent of three types of eWOM exchanges in online communities, so as to better provide a context for the intended contribution of this study. Furthermore, this chapter presents a conceptual framework and research hypotheses.

Chapter 3 describes and justifies the importance and appropriateness of the methodology employed for this study: quantitative survey research. Then, the process of research design (data collection techniques, justification of the sample, and sample design), and the issues of validity, reliability, and ethics are explained.

Chapter 4 analyses the data drawn from the sample to test the conceptual framework developed in Chapter 2. SPSS is used to analyse descriptive statistics, factor analysis, and correlation coefficients. Next, regression analysis is run to test whether the relationships between member motivations and the types of eWOM exchanges are in the proposed directions and if these relationships are statistically significant.

Chapter 5 explains the research results and offers a discussion of the data and hypotheses. This chapter ends with theoretical and practical contributions of this study, research limitations, and recommendations for further research.

Figure 1.2: Outline of this study



Source: Developed for this research

1.9 Conclusion

This chapter has presented the structure for conducting this study. The importance of the research question is justified. The appropriate research method and research design process are explained. The data are analysed and the research results are presented. Finally, the contributions, limitations, and future research are noted. With this structure, this study can proceed with a description of the research commencing with an overview of the literature discussed in Chapter 2.

CHAPTER 2

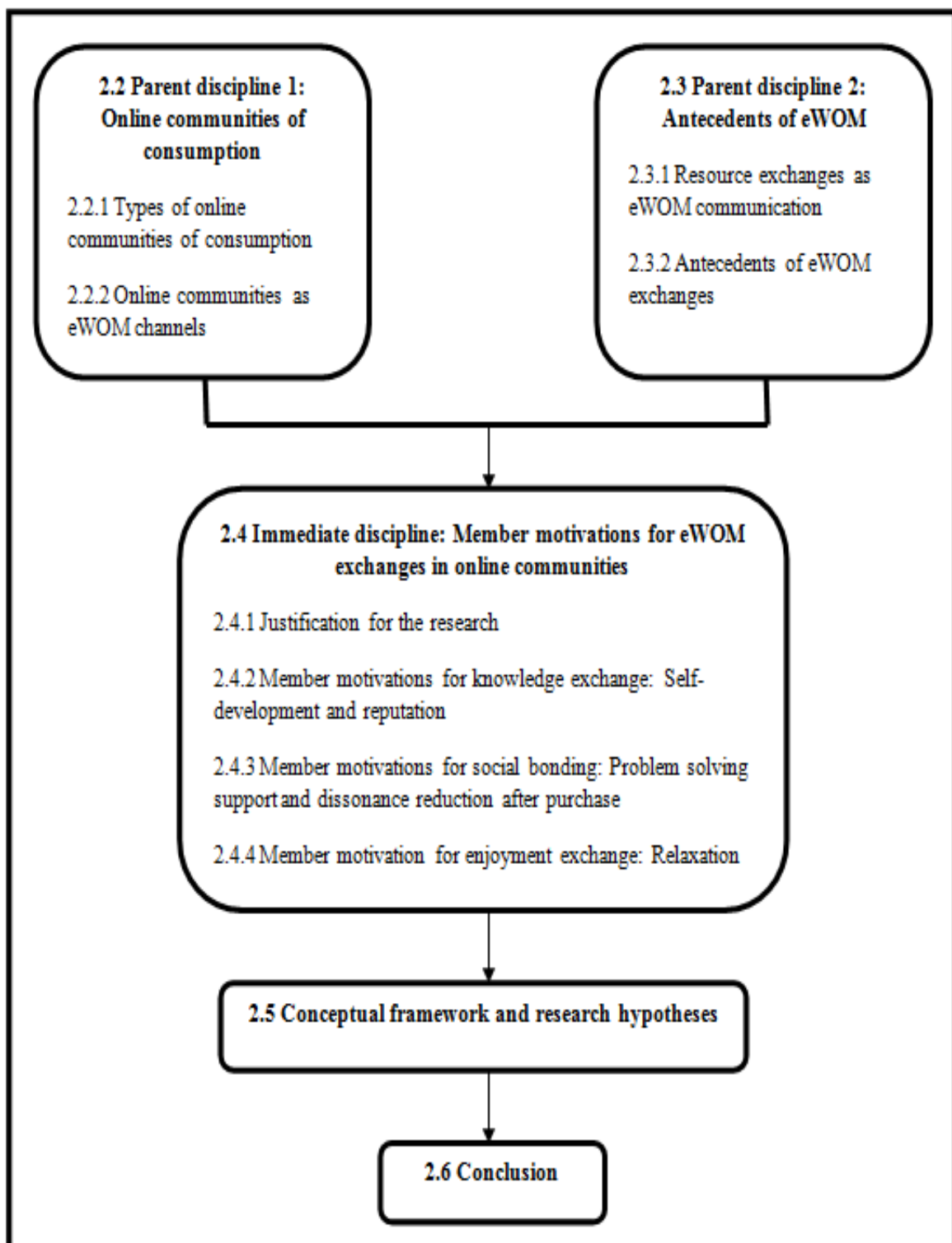
Literature review

2.1 Introduction

This chapter reviews the literature so as to assist this study in addressing the research question “What are the driving factors for members to exchange eWOM in an online community?”. The parent disciplines are composed of online communities of consumption and antecedents of eWOM, and the immediate discipline is member motivations for eWOM exchanges in online communities. The conceptual framework is then developed from the foundation of the parent disciplines.

This chapter contains six sections, as demonstrated in Figure 2.1. Following the introduction, the two parent disciplines of online communities of consumption (Section 2.2) and antecedents of eWOM (Section 2.3) are reviewed. Then, the immediate discipline of member motivations for eWOM exchanges in online communities (Section 2.4) is synthesised based on each review. Additionally, the parent disciplines enable the conceptual framework and the research hypotheses (Section 2.5). Finally, a conclusion of the literature review is given (Section 2.6).

Figure 2.1: Outline of Chapter 2

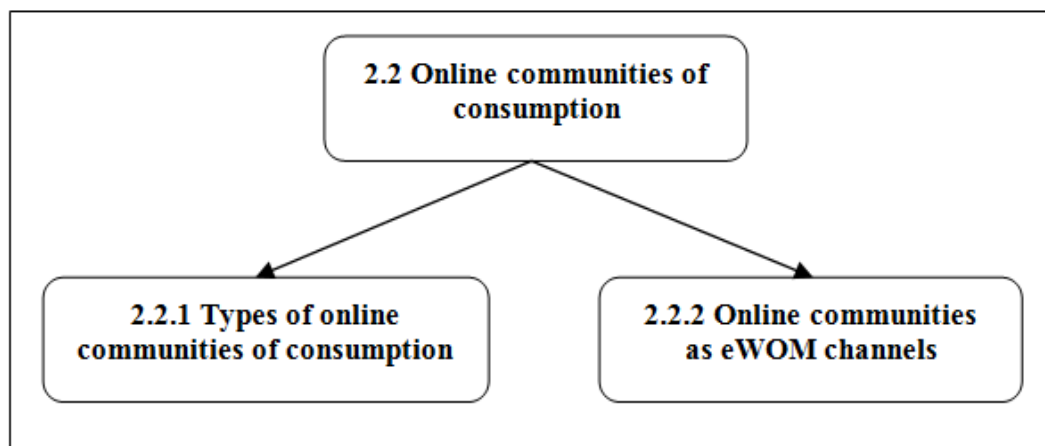


Source: Developed for this research

2.2 Parent discipline 1: Online communities of consumption

The following section provides an overview of literature on the nature of virtual or online communities of consumption and the types of online communities: online communities of practice and online communities of interest. It will then focus on online communities as eWOM channels. Finally, the characteristics of each eWOM channel will be described and its implications for marketers and consumers will be detailed. An outline of parent discipline 1 is demonstrated in Figure 2.2.

Figure 2.2: Outline of parent discipline 1: Online communities of consumption



Source: Developed for this research

2.2.1 Types of online communities of consumption

Virtual or online communities are social groupings of a sufficient number of people that maintain discussions for a sufficient period, and create personal relationships with others on the Internet (Rheingold, 1993). Kozinets (1999) defined ‘virtual communities of consumption’ as a particular subgroup of online communities, and people in this group share mutual interests in exchanging information and have social interactions about consumption-related activities. Online communities of consumption serve as an important context for this study since they enable consumers to share product information which can influence others about product or brand choices (Kozinets, 2002). Further, marketing researchers have opportunities to better understand the tastes, desires, and needs of consumers who socially interact with others in online communities (Kozinets, 2002).

Online communities of consumption become a source of product information and social relations (Kozinets, 1999), which can affect each purchase decision of a buyer

(Pitta & Fowler, 2005b). Patient consumers (those who consider the similarities and differences of product quality before making purchases), and analytical consumers (those who search for product information thoroughly) tend to participate in these online communities in order to facilitate their purchase decisions of particular products (Pitta & Fowler, 2005b).

After making purchase decisions, consumers can also use online communities of consumption to exchange their consumption experiences (De Valck, et al., 2009). Consumers can discuss products that they have been using with others in the communities (Pitta & Fowler, 2005b). For instance, they can help each other find the ways to repair the products, improve the performance of the existing products, and integrate the products with others they have (Pitta & Fowler, 2005b). Therefore, online communities facilitate consumers to increase the efficiency of product use without necessary marketer intervention (Gruen, et al., 2006).

There are two types of online communities of consumption: online communities of practice and online communities of interest (Pitta & Fowler, 2005b). Online communities of practice are where consumer groups who are involved in a shared practice activity have a primary purpose to develop their particular skills and abilities by exchanging knowledge with others in order to achieve a problem-solving goal (Pitta & Fowler, 2005b; Wasko & Faraj, 2005) in particular fields, such as software development (Bonaccorsi & Rossi, 2003). Knowledge exchange about updated information and personal experiences with products has an influence on member perceptions of the overall value of products, and leads members to generate positive eWOM by recommending the products to others (Gruen, et al., 2006).

Consumers in online communities of practice, such as software development, place importance on knowledge exchange, and thus are less likely to build close social relationships with others (Hall & Graham, 2004; Wasko & Faraj, 2000). This is because discussion topics, such as code breaking is “an intellectual rather than social pursuit” (Hall & Graham, 2004, p. 242). In other words, consumers tend to place value on the capacity to acquire and apply knowledge instead of social bond building in the communities (Hall & Graham, 2004).

Online communities of interest are social aggregations of consumers, who mutually discuss their common interests or hobbies (Pitta & Fowler, 2005b), such as wedding planning (Nelson & Otnes, 2005), digital cameras (Fong & Burton, 2006a), culinary products (De Valck, et al., 2009), and beauty products (Chan & Li, 2010; Hung & Li, 2007; Hung, Li, & Tse, 2011). These communities enable consumers not only to exchange product knowledge and experiences (Hung & Li, 2007; Ma & Agarwal, 2007; Pitta & Fowler, 2005b), but also establish strong social relationships (Chan & Li, 2010; Pitta & Fowler, 2005b) and have social interactive enjoyable activities with others about products (Chan & Li, 2010; Schindler & Bickart, 2005).

Consumers participate in various activities in online communities of interest. For example, in an online beauty community, consumers can share knowledge about their beauty tips and how-tos (Hung & Li, 2007), such as how to apply liquid foundation with a brush or sponge. Further, consumers can create intimacy with others by talking about matters pertinent to community members' daily lives (De Valck, et al., 2009). For example, they can share their favourite beauty products or intense life experiences, such as a nail biting habit. Consumers may find solutions from the experiences of others, such as painting nails to break the nail biting habit, which can lead members to strengthen social relationships with others (Pitta & Fowler, 2005b). In addition, consumers can experience enjoyment by sharing funny stories and photos of product use (Schindler & Bickart, 2005), such as fun wig experiences with different looks without hair damage. The different characteristics between two types of online communities are summarised in Table 2.1.

Table 2.1: Characteristics of online communities of practice and interest

Types of online communities	Characteristics of online communities	Examples of product categories
Online communities of practice	Consumers primarily exchange knowledge so as to help each other solve their consumption-related problems (Hall & Graham, 2004; Pitta & Fowler, 2005b; Wasko & Faraj, 2000).	Legal advice (Wasko & Faraj, 2005) and software development (Bonaccorsi & Rossi, 2003; Lakhani & von Hippel, 2003)
Online communities of interest	Consumers participate in several consumption activities including - sharing knowledge about product tips and how-tos (Hung & Li, 2007). - building friendships with others by talking about matters of interest in the community (De Valck, et al., 2009). - experiencing enjoyment by sharing funny stories and photos of product use (Schindler & Bickart, 2005).	Wedding planning (Nelson & Otnes, 2005), digital cameras (Fong & Burton, 2006b), food and restaurants (Cheung, et al., 2008), culinary products (De Valck, et al., 2009), and beauty products (Chan & Li, 2010).

Source: Developed for this research

This study focuses on an online community of interest since this community facilitates consumers to engage in different resource exchange activities. Consumers can exchange three types of resources about products: knowledge (Hung & Li, 2007; Ma & Agarwal, 2007), social bonds, and enjoyment relevant to products (Chan & Li, 2010). These three activities generate eWOM communication (Schindler & Bickart, 2005) (discussed in detail in Section 2.3.1), which can increase the awareness of product benefits (Bickart & Schindler, 2001; De Bruyn & Lilien, 2008), and potentially influence consumer purchase decisions (Schindler & Bickart, 2005). From the perspective of exchanges, this study attempts to seek member motivations as the antecedent of eWOM exchanges (knowledge, social bonds, and enjoyment about products) in an online community of interest. The next section will discuss online communities, which are regarded as important marketing channels in disseminating consumers' eWOM communication.

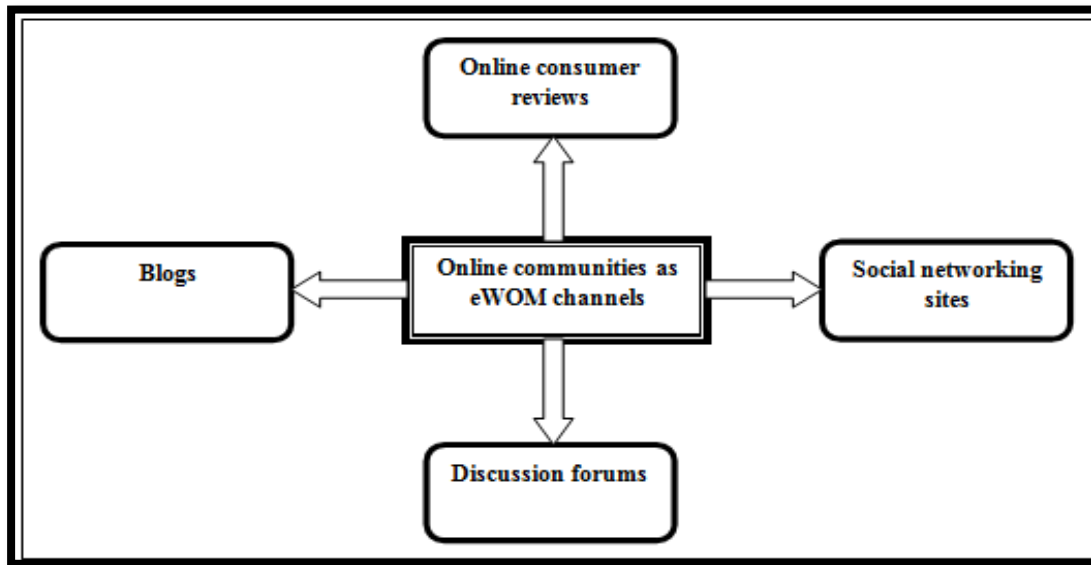
2.2.2 Online communities as eWOM channels

WOM has been defined as “all informal communications directed at other consumers about the ownership, usage, or characteristics of particular goods and services or their sellers” (Westbrook, 1987, p. 261). With the advancement in computer-mediated communication, consumer-generated websites have been increasingly used by consumers in order to share information and experiences about companies, products, and services (Dellarocas, 2003). Online communities enable consumers to

build social relationships with liked-minded people and serve as a dynamic, engaging, and social interactive venue for eWOM (Hung & Li, 2007). Friends and acquaintances, whom consumers interact with through the Internet, are important and powerful sources of information regarding product choices (Thorson & Rodgers, 2006). Indeed, "personal contacts seem to be most effective in causing changes in opinion and behavior" (Brooks, 1957, p. 155). Consumers consider eWOM from personal connections as a more trustworthy source of consumer information than marketing information generated through mass media (Pan, MacLaurin, & Crotts, 2007).

Marketer-generated communication is sometimes less effective than consumer-generated communication (Thorson & Rodgers, 2006). According to an experiment by Bickhart and Schindler (2001), individuals who searched for product information from traditional, marketer-generated forms, such as corporate websites, were less interested in product categories than individuals who searched for product information from online communities, such as discussion forums. This is because product information shared by online consumer groups is more credible and relevant to consumers than product information provided by companies on corporate websites (Bickart & Schindler, 2001). This indicates that the location, in which eWOM appears, affects the perceived effectiveness of the eWOM messages (Sussan, Gould, & Weisfeld-Spolter, 2006), and therefore consumption activities are being fundamentally changed due to Internet information access and interactivity of consumers (Kozinets, 1999). It is necessary for marketers to first understand types of online communities of consumption in order to then form alliances with those powerful communities (Kozinets, 1999). This is because marketers can take advantages of such online communities by developing effective marketing strategies, such as online advertising to promote their products or brands. The next section will discuss four types of online communities of consumption as eWOM channels. These are blogs, online consumer reviews, social networking sites, and discussion forums, which are illustrated in Figure 2.3.

Figure 2.3: Types of online communities as eWOM channels



Source: Developed for this research

Blogs

Blogs possess particular characteristics and have gained popularity among consumers. There are two basic types of blogs: marketer and consumer generated blogs. The former is created by companies so as to allow them to promote their products or brands and build relationships with their customers, whereas the latter is created and written by one person (Schmallegger & Carson, 2008). Generally, a blog is a website in which an individual can publish their opinions, experiences, and stories about particular topics, such as trip stories relevant to travel products or services, and allow visitors to leave comments and interact with the publisher (Schmallegger & Carson, 2008). Blogs are an effective channel for eWOM marketing and have become more popular among consumers (Li & Du, 2011). According to a report on US blog usage, in 2009 there were 27.9 million bloggers that had a blog they update at least monthly, representing 14 percent of the US internet population (eMarketer, 2011). By 2013, the numbers of bloggers are expected to continue growing to 37.6 million (eMarketer, 2011).

Blogs are advantageous to both consumers and marketers. Consumers can gain useful information from blogs to facilitate their purchase decisions. For example, research in tourism marketing indicated that travel products were difficult for consumers to evaluate for their quality and benefits prior to purchase (Schmallegger

& Carson, 2008). Thus, eWOM relevant to the direct experiences of tourism products, such as that found on travel blogs, is viewed as a credible source, and considered very important for travel planning and purchase decisions (Huang, Chou, & Lin, 2010; Pan, et al., 2007; Schmallegger & Carson, 2008).

Marketers can use blogs to develop marketing strategies. For example, as product recommendations from opinion leaders are influential to the attitudes of others (Li & Du, 2011), marketers can sponsor these key individuals to generate positive eWOM on blogs in order to help marketers promote their products or services (Schmallegger & Carson, 2008). Moreover, negative comments on blogs enable marketers to handle such comments quickly in order to repair customer relationships and protect their product or brand reputation (Li & Du, 2011; Schmallegger & Carson, 2008).

Online consumer reviews

Online consumer reviews continue to grow due to their specific attributes. This eWOM channel allows consumers to read the experiences, evaluations, and opinions of others who have purchased and used a product, on sellers' or third party's websites (Hennig-Thurau & Walsh, 2003). Consumers can also post their comments online in the form of an account of their own experience with a product and perhaps a rating of product evaluations (Hennig-Thurau & Walsh, 2003). Online consumer reviews have increased in popularity and importance (Chen & Xie, 2008; Park, Lee, & Han, 2007). For instance, as of 2011, Amazon.com had approximately 45 million consumers worldwide posting reviews and shopping on its website (Marketingplan, 2011).

Online consumer reviews are beneficial to consumers and marketers as this eWOM channel facilitates consumers to meet their consumption goals (Zhang, Craciun, & Shin, 2010). Furthermore, online consumer reviews provide more credible product information than seller-generated information (Bae & Lee, 2011) since both benefits and drawbacks of a product are evaluated from consumers' perspectives in order to identify whether the product delivers on its promises (Park, et al., 2007). Next, marketer-generated information focuses on product attributes whereas consumer-created information details usage situations and product benefits. Hence, consumer reviews are more understandable since the information is provided through consumers' direct experiences with a product (Park, et al., 2007).

Online consumer reviews offer opportunities for marketers to improve business strategies. Marketers can use this eWOM channel to increase product sales (Chen & Xie, 2008) due to the influence of positive comments (Chevalier & Mayzlin, 2006) and the volume of eWOM (Liu, 2006). Additionally, marketers can improve the quality of the firm's products and services by analysing the weaknesses identified by customer articulations on online consumer reviews (Hennig-Thurau & Walsh, 2003).

Social networking sites

Social networking sites have experienced strong growth (Lin & Lu, 2011) owing to their significant features. Social networking sites, such as Facebook and MySpace, allow a group of people to develop their own personal networks for social or professional aims (Luck & Mathews, 2010). Individuals are able to “interact, chat, keep in touch, re-acquaint, meet, and share music, videos, and photos” (Luck & Mathews, 2010, p. 135). Therefore, social media offers a platform of eWOM communication (Jansen, Zhang, Sobel, & Chowdury, 2009) since they facilitate consumers to give and seek consumption-related information as well as promote and launch their own products (Hennig-Thurau et al., 2010). The use of social networking sites has grown in popularity (Lin & Lu, 2011). According to the rank of the top 500 sites on the global web, Facebook is the second most popular website visited by online users, accounting for more than 6 percent of global internet traffic, as of July 2011 (Alexa, 2011).

The use of social networking sites can have advantages for both consumers and marketers. Social media allows consumers to gain trustworthy information from others' positive and negative opinions or comments concerning brands, companies, products, or services (Jansen, et al., 2009). Additionally, some consumers perceived that they were more knowledgeable than others; thus, can recommend products and help other consumers make better purchase decisions (Zhang & Daugherty, 2009).

Marketers can build eWOM marketing strategies through online social networking sites. For example, marketers can create their own social networking sites in order to increase brand awareness and brand image from consumers' opinions and comments of products or brands (Jansen, et al., 2009). Further, when current customers send invitations to their friends to join social networking sites created by companies (i.e.,

eWOM referrals), this can assist marketers in acquiring new customers (Trusov, Bucklin, & Pauwels, 2009). In addition, marketers can use promotional programs such as contests to enhance awareness of brands or products through consumers' networks (Mabry & Porter, 2010). The next section talks about discussion forums.

Discussion forums

There is a continued growth of discussion forums due to their important characteristics. A discussion forum is hosted by an online community website where a forum manager is responsible for modifying or deleting topics or threads if necessary, and moderating forum members to follow forum rules (Beautyheaven, 2011). Discussion forums are usually divided into different areas of interest, such as coffee consumption, and the messages posted by consumers are organized into different topic "threads" running in each area, such as coffee machine recommendations and coffee making advice (Granitz & Ward, 1996). Postings are archived within the forums and added over time, allowing members to retrieve information from the postings (Pitta & Fowler, 2005a). The posted threads generate a good source of written digital conversation, and thus provide a written record of eWOM (Granitz & Ward, 1996). There has been a growth in the use of discussion forums as an eWOM venue for product recommendations and social interactions (Fong & Burton, 2006a, 2006b). In 2009, 62 percent of Internet users in Australia participated in online communities of interest through discussion forums as a major channel for social media discussion (DigitalMarketingLab, 2012).

Discussion forums offer benefits to consumers and marketers. Consumers can take advantage of discussion forums in three aspects (Bickart & Schindler, 2001). First, posted messages on discussion forums are viewed as trustworthy sources as consumers do not gain any financial benefit from product companies. Second, the information regarding product performance posted by forum members is more relevant to consumers compared to the information generated by marketers who might never have used the products. Finally, when consumers post their funny stories of product uses, readers can empathise with the feeling of posters and perceive the benefits gained from using the products (Bickart & Schindler, 2001).

Marketers can use discussion forums as a venue for eWOM marketing since forum members play an important role as consumption advisors, and impact on others' product or brand choices (Fong & Burton, 2006a; Nelson & Otnes, 2005). Further, discussion forums allow marketers to collect consumer marketing data and observe discussion forums directly in terms of their product or service usage, brand preferences, satisfaction, degree of brand loyalty, discussion of direct competitors for different products (Pitta & Fowler, 2005a), complaints, and new ideas for product development (Pitta & Fowler, 2005b). A summary of four important eWOM channels denoting their characteristics and benefits to consumers and marketers, as described in the literature, is shown in Table 2.2.

Among four types of eWOM channels, discussion forums are more suitable to assist in addressing the research problem with regard to member motivations for eWOM exchanges. Discussion forums are perhaps the online locations most directly relating to consumption activities, since discussion forums contain many consumers having strong interest in a particular topic of their consumption interests (Kozinets, 1999). Furthermore, a high level of interaction and involvement, and a feeling of being more a member than a mere participant, are apparent in discussion forums (Bronner & Hoog, 2011). Thus, discussion forums allow members, who have mutual interests in particular products and value the social experience (Bickart & Schindler, 2001), to engage in three types of eWOM exchanges (Schindler & Bickart, 2005): knowledge, social bonds, and enjoyment relevant to products (Chan & Li, 2010). However, there is a fundamental yet unanswered question concerning member motivations for eWOM exchanges in an online community in the form of a discussion forum. Therefore, this study will attempt to address the research question in this context.

Summary of parent discipline1: Online communities of consumption. This section has reviewed two types of online communities of consumption: online communities of practice and interest. Further, it has detailed four important types of online communities of consumption as eWOM channels: blogs, online consumer reviews, social networking sites and discussion forums. An online community of interest in the form of a discussion forum has been selected as a context of this study as it is more appropriate to help address the research question. The next section will discuss the second parent discipline: antecedents of eWOM.

Table 2.2: Characteristics of each eWOM channel and its benefits to consumers and marketers

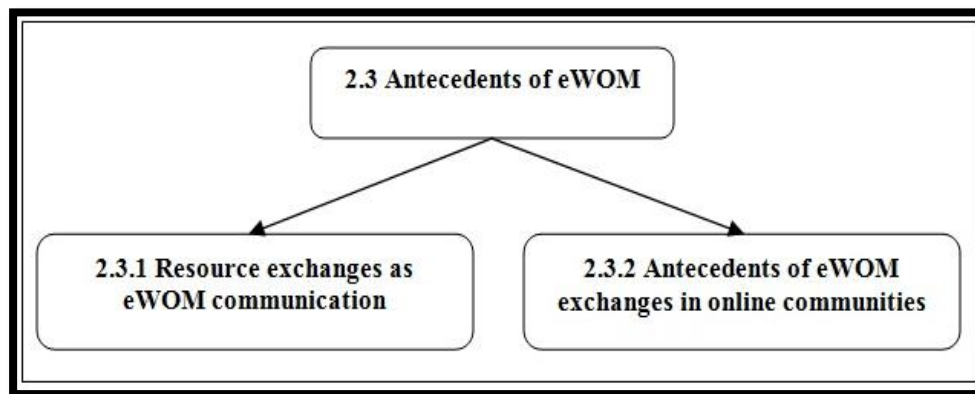
Types of eWOM channels	Characteristics of eWOM channels	Benefits of eWOM channels to consumers	Benefits of eWOM channels to marketers
Blogs	Consumers can publish their opinions and stories relevant to products or services, and allow visitors to leave comments and interact with the publisher.	-Perceive the credibility of product information, which is very important prior to purchase especially for experience goods, such as travel products.	-Sponsor opinion leaders to generate positive WOM on blogs to promote products or services. -Handle negative WOM quickly to repair customer relationships and protect product or brand reputation.
Online consumer reviews	Consumers can post comments online in the form of an account of their own product experience and perhaps a rating of product evaluations.	-Gain trustworthy information from the product evaluations of other consumers to see whether the product delivers on its promises. -Easy to understand the usage situations and benefits of products from consumers' direct experiences.	-Increase product sales due to the influence of positive comments and the volume of eWOM. -Improve product and service quality from the weaknesses specified by consumers.
Social networking sites	Consumers can form their own online social networks (e.g., Facebook) to exchange consumption-related information as well as promote and launch their own products.	-Derive credible information from others' positive and negative opinions or comments concerning some brands, including companies, products, or services. -Help each other recommend better products before purchase.	-Increase brand awareness and brand image from consumers' opinions and comments of products or brands. -Acquire new customers through eWOM referrals. -Use promotional programs, such as contests to enhance awareness of brands or products.
Discussion forums	Consumers with similar areas of interest post messages related to information and experiences with products on "threads", organized into different topics.	-Find trustworthy information from consumers, who do not gain any financial benefit from product companies. -Product performance information is more relevant to consumers than marketers as consumers discuss the information directly related to their product experiences. -Perceive the product benefits gained from others' fun stories of product uses.	-Increase product sales since consumers function as consumption advisors and influence others' product or brand choices. -Collect consumer marketing data: brand preference and loyalty, satisfaction, perceived direct competitors of products, complaints, and new ideas of product development.

Source: Developed for this research from Granitz and Ward (1996); Bickart and Schindler (2001); Hennig-Thurau and Walsh (2003); Nelson and Otnes (2005); Pitta and Fowler (2005a, 2005b); Chevalier and Mayzlin (2006); Fong and Burton (2006a); Liu (2006); Pan et al. (2007); Park et al. (2007); Chen and Xie (2008); Schmallegger and Carson (2008); Jansen et al. (2009); Trusov et al. (2009); Zhang and Daugherty (2009); Hennig-Thurau et al. (2010); Huang et al. (2010); Luck and Mathews (2010); Mabry and Porter (2010); Bae and Lee (2011); Li and Du (2011)

2.3 Parent discipline 2: Antecedents of eWOM

This section firstly reviews the literature on resource exchange theory to gain an understanding of the nature of consumer-to-consumer resource exchanges in an online community of interest. In addition, it discusses the aspect of resource exchanges in the community as eWOM communication. Finally, the literature on the antecedents of eWOM exchanges is reviewed in order to provide an explanation of what facilitates members to exchange eWOM in an online community. An outline of parent discipline 2 is illustrated in Figure 2.4.

Figure 2.4: Outline of parent discipline 2: Antecedents of eWOM



Source: Developed for this research

2.3.1 Resource exchanges as eWOM communication

A resource is determined as anything that can be transferred from interpersonal interactions of individuals from one person to another (Foa, 1976). Foa and Foa (1974) developed a resource exchange theory with an attempt to categorise and identify the structure of a wide range of resources. Six categories of these resources from Foa's (1971) theory are defined as follows: love (i.e., an expression of affectionate regard, warmth, and comfort), status, information, money, goods, and services.

The occurrence of a resource exchange is reliant on two conditions. First, a resource exchange exists according to the suitability of the environment as well as the individuals' ability and motivation to give in return for something received (Foa & Foa, 1974). Online communities facilitate members to exchange resources by forming meaningful social relationships and sharing information in order to solve

consumption-related problems (Mathwick, Wiertz, & De Ruyter, 2008). The first condition is met since this social system environment allows members to give and receive resources that are consistent with their needs (Chan & Li, 2010).

Next, it is dependent on a number of resources an individual has (Chan & Li, 2010). Reciprocity provides a pattern of exchange of various resources in a human society (Gouldner, 1960). A person engaging in an exchange transaction expects to be reciprocated (Foa & Foa, 1974). Consequently, when individuals offer richer resources, they expect greater reciprocation (Foa & Foa, 1974). Online communities meet the second condition due to the norm of reciprocity through online interactions (Chan & Li, 2010). Reciprocity discourages members from exploiting resources without contributing resources themselves. Thus, members are stimulated to give in return for receiving resources from others, which can help sustain the viability of the communities. Members gather a number of resources they receive and then withdraw those resources when they require them (Chan & Li, 2010).

Recent research extends Foa and Foa (1974)'s resource exchange theory to an online community of interest (Chan & Li, 2010). They have shown that exchanges of informational and socio-emotional (social bonds and enjoyment) resources have an impact on members' reciprocal interactions in the community. When a member provides other members with knowledge, social bonds, and enjoyment, they will receive similar or different resources in return. For example, a member, who provides knowledge, may receive knowledge from others, or a member, who gives knowledge, may receive expressions of admiration (status) and socio-emotional support (love) from others in an online community (Chan & Li, 2010).

The exchanges of informational (knowledge) and socio-emotional (social bonds and enjoyment) resources in an online community of interest are regarded as important sources of eWOM communication, which can potentially impact on consumer purchase decisions (Schindler & Bickart, 2005). First, members primarily exchange useful product information or knowledge (Mathwick, et al., 2008). For instance, members participate in an online beauty community to seek and give beauty product knowledge, such as beauty tips and product quality or performance. Product knowledge exchange in an online community serves as eWOM since it enables members to increase product knowledge development (setting criteria for product

choices, such as effectiveness and ingredients), enhance awareness of marketers' persuasion attempts, decrease unnecessary purchases, generate new ideas for using a product, and prevent the purchase of fake products (Hung & Li, 2007).

Next, social bond establishment through the interactions of members with similar product interests are another source of eWOM communication in online communities (De Bruyn & Lilien, 2008; Granitz & Ward, 1996; Schindler & Bickart, 2005). Online community members tend to create strong social ties with others who have similar product interests (Brown, et al., 2007), and thus they perceive product value from the social connections as a result of using products rather than from the companies or brands themselves (Kozinets, 2002). For example, members in an online beauty community build close social relationships with others by talking about beauty matters happening in their daily lives, such as their favourite beauty products and beauty gifts for their beloved friends or family. Members, who spread eWOM by sharing their product stories with others, are considered as promoters of products since online peer-to-peer communications can increase the awareness of the potential benefits of products (De Bruyn & Lilien, 2008).

Finally, online communities of interest provide a prominent social environment for members to gain social interactive enjoyment about products with others (De Valck, et al., 2009; Hung & Li, 2007), which can generate eWOM communication (Bickart & Schindler, 2001; De Bruyn & Lilien, 2008; Schindler & Bickart, 2005). Members participate in enjoyable activities by sharing their extreme viewpoints as well as humorous stories and photos relating to products (Schindler & Bickart, 2005). In the case of an online beauty community, members may share their fun stories and photos about their hair and makeup looks for parties, such as a Halloween party. Members can both entertain and educate others from sharing their fun experiences with products since readers can perceive the advantages of using such products when they find that posters' stories are fun (Bickart & Schindler, 2001). The perceived product benefits from amusing stories of others may lead members to make purchase decisions (Schindler & Bickart, 2005).

The evidence found by Chan and Li (2010)'s study in the perspective of resource exchanges is applied to address the problem in this study. This study views resource exchanges as eWOM communication, and attempts to help researchers gain a better

understanding of member motivations for exchanging eWOM in an online community of interest, which may differ based on three types of resource exchanges (knowledge, social bonds, and enjoyment relevant to products). The resource exchanges play an important role in influencing consumer behaviours, and thus this study expects to assist online community providers in developing effective marketing strategies in order to persuade both current and potential members to participate in an online community. The next section will discuss the antecedents of eWOM exchanges in online communities.

2.3.2 Antecedents of eWOM exchanges in online communities

One previous study has examined three potential antecedents of eWOM communication in an online community: motivation (a member's desire or readiness), opportunity (a condition favourable for attainment of a goal), and ability (a member's skills or proficiencies) (Gruen, et al., 2006). The findings indicated that the antecedents of eWOM communication comprised motivation and ability (Gruen, et al., 2006). This study has a specific focus on a motivational factor as the antecedent of eWOM exchanges due to the following reasons. First, the findings of prior research support the strong impact of motivation on eWOM exchanges. For example, Gruen et al. (2006) found that motivation significantly impacted on eWOM exchanges more than did ability. Furthermore, Bagozzi and Dholakia (2002) showed that desire or motivation was considered as a transformative function which greatly influenced consumers to engage in online communities.

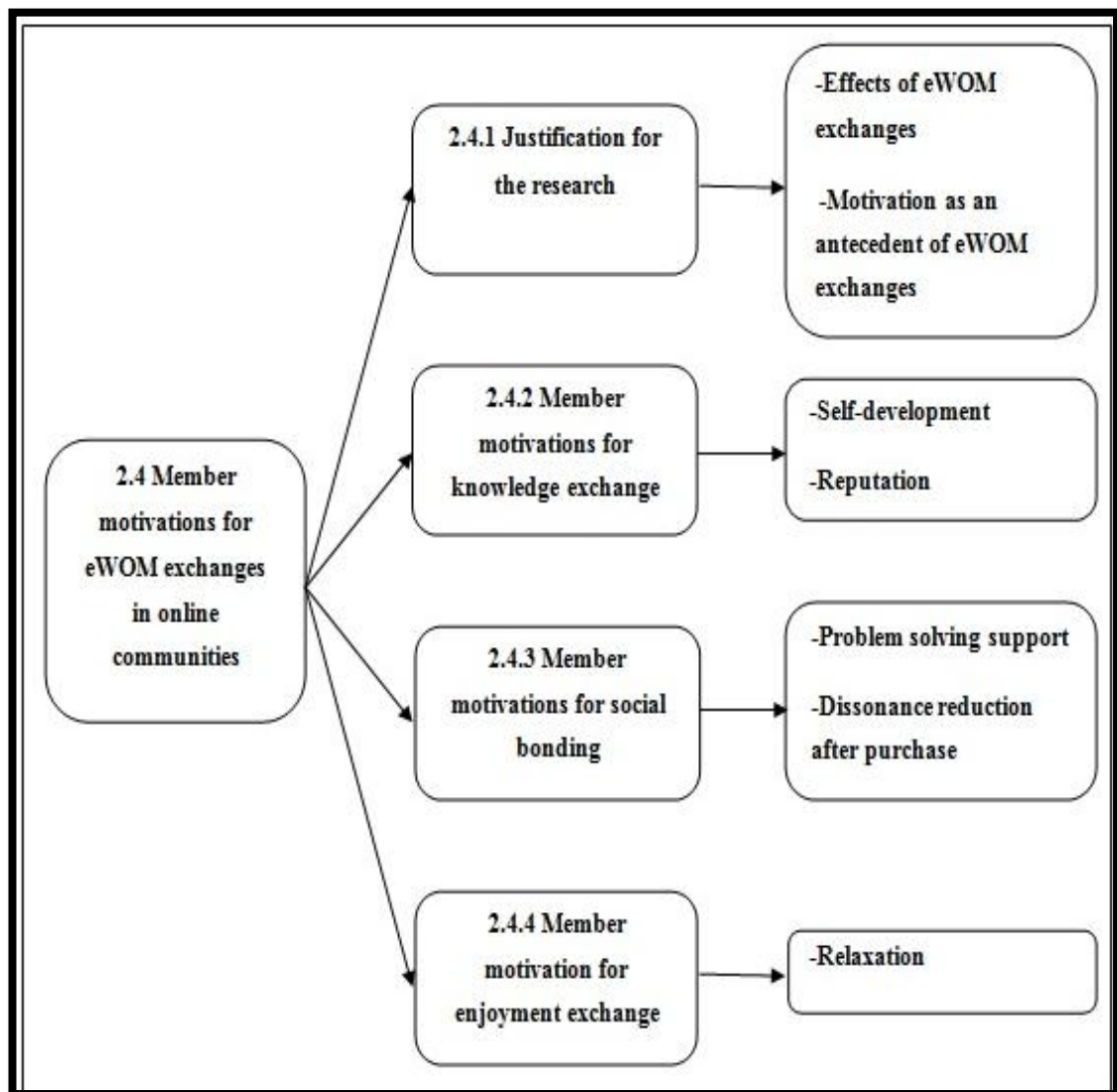
Second, in order to make an online community viable, online community providers should understand members' fundamental incentives for online community participation (Wang & Fesenmaier, 2004b). Member motivations may be different according to the types of eWOM exchanges. A fact that should be taken into consideration is that individuals may participate in online communities for different reasons, and value some motivations as more important than others. Hence, it is important to understand members' specific motivations for eWOM exchanges in order to retain a sufficient number of them and to attract other potential members to join the community. "Higher online traffic implies more opportunities for online advertising, promotions, and sponsorships" (Hung, et al., 2011, p. 112).

Summary of parent discipline 2: Antecedents of eWOM. This section has detailed the types of resource exchanges in an online community of interest: knowledge, social bonds, and enjoyment relevant to products. Additionally, the aspect of resource exchanges as eWOM communication was explained based on the evidence from prior studies. Finally, motivation was considered an important antecedent of eWOM exchanges in an online community. The next section will synthesise the immediate discipline on the basis of the two parent disciplines: member motivations for eWOM exchanges in online communities.

2.4 Immediate discipline: Member motivations for eWOM exchanges in online communities

This section will identify the research gaps remaining from prior studies. It will then put an emphasis on a literature review of different member motivations based on the types of eWOM exchanges, which will assist this study in addressing the research question “What are the driving factors for members to exchange eWOM in an online community?”. Member motivations for knowledge exchange will be explained by applying social capital theory. Further, social capital and cognitive dissonance theories will be employed to explain member motivations for social bonding. Finally, member motivation for enjoyment exchange will be explained by a synthesis of uses and gratifications (U & G) with flow theories. An outline of immediate discipline is illustrated in Figure 2.5.

Figure 2.5: Outline of immediate discipline: Member motivations for eWOM exchanges in online communities



Source: Developed for this research

2.4.1 Justification for the research

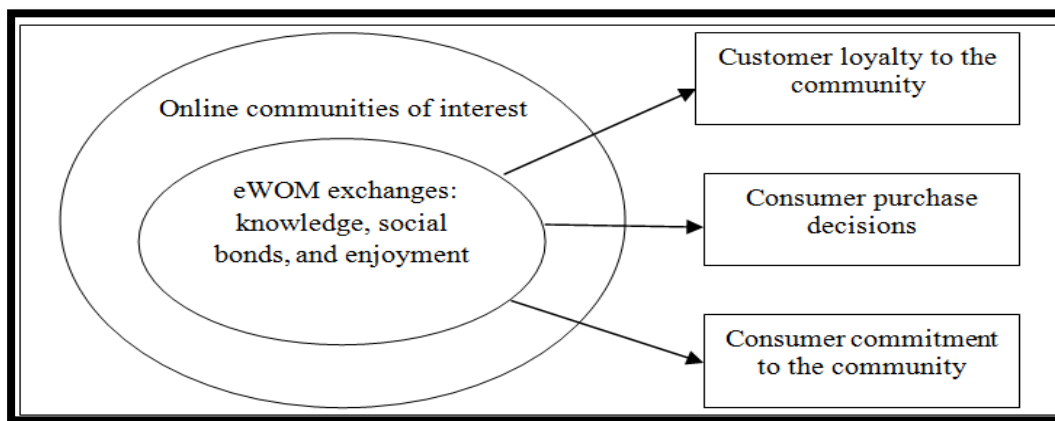
This study provides a discussion of previous studies on outcomes of eWOM exchanges, and a lack of research on a motivational factor as the antecedent of three types of eWOM exchanges in online communities of interest. In doing so, this research justification helps place the intended contribution of this study in context.

Effects of eWOM exchanges

eWOM communication is widely accepted by consumers and exerts considerable impact on consumer behaviours (Doh & Hwang, 2009). Researchers realise the importance of eWOM effects according to the types of eWOM exchanges, and thus

are particularly interested in the outcomes of such exchanges on various aspects of consumer behaviours in the context of online communities of interest, such as customer loyalty to the community (Kim, et al., 2004), consumer purchase decisions (Chan & Li, 2010; Cheung, et al., 2008; De Valck, et al., 2009; Fong & Burton, 2006a; Nelson & Otnes, 2005), and consumer commitment to the community (Brown, et al., 2007; Chan & Li, 2010). This study presents the effects of eWOM exchanges on consumer behaviours based on the findings of previous studies, as seen in Figure 2.6 and Table 2.3. The next section will discuss a need for understanding member motivations as the antecedent of eWOM exchanges in online communities.

Figure 2.6: Effects of eWOM exchanges on consumer behaviours in online communities of interest



Source: Developed for this research from Kim et al. (2004); Nelson and Otnes (2005); Fong and Burton (2006b); Brown et al. (2007); Cheung et al. (2008); De Valck et al. (2009); Chan and Li (2010)

Table 2.3: Findings of previous studies on the effects of eWOM exchanges on consumer behaviours in online communities of interest

Authors	Types of online communities of interest	Knowledge exchange	Social bonds /enjoyment exchange	Effect of eWOM on consumer behaviours	Research findings
Kim et al. (2004)	Travel	Useful information and experiences with travel products	Friendship building through membership and a feeling of influencing over others' opinions on travel products	Customer loyalty	Membership, influence over others, and ability to exchange useful travel information with others affected members to become loyal to the community.
Nelson and Otnes (2005)	Intercultural bride-to-be's wedding planning	"How-to's", traditional dance steps, recipes, historical and cultural information, information about local sellers	Build intimacy by sharing stories and discussing concerns about sex, romance, family, dresses, and invitations	Consumer purchase decisions	Members played an important role as consumption advisors and influenced others in purchase decisions of product and brand choices.
Cheung et al. (2008)	Food and restaurants	Experience, comments, and suggestions about restaurants based on cuisine, dishes, price ranges, and locations	Not analysed	Consumer purchase decisions	The exchange of useful information among members about food and restaurants significantly affected purchase decisions and induced them to take any consumption action from sharing information about a particular restaurant or style of food they want.
Fong and Burton (2006)	Digital cameras	Digital camera recommendation	Not analysed	Consumer purchase decisions	Knowledgeable members, exchanging digital camera information, were regarded as opinion leaders and might influence others in purchase decisions.
De Valck et al. (2009)	Culinary products	Cooking tips, hints, and techniques, how to cook, and ingredient profiles.	Create intimacy by discussing culinary matters, such as satisfaction with cooking results, food products, and culinary events.	Consumer purchase decisions	Social bonds had an impact on four stages of cooking decision process; (1) cooking frequency, (2) recipe knowledge, (3) recipe choice, and (4) satisfaction with results.
Chan and Li (2010)	Beauty products	Beauty products information and recommendations	Have close relationships and enjoyable activities with others by sharing experiences and photos about beauty products	Consumer purchase decisions Consumer commitment to the community	Socio-emotional resource exchanges (social bonds and enjoyment) and reciprocal interactions impacted on members' co-shopping intentions. Socio-emotional resource exchanges and reciprocal interactions influenced member commitment to the community.
Brown et al. (2007)	TV programmes	Information about TV series and relevant merchandise (e.g., DVDs, memorabilia, and the like)	Build strong relationships with others by having gossips within product categories	Consumer commitment to the community	Members committed to the community as they wanted to keep updating the latest information about TV series and DVDs. Also, they had a social concern with a duty of some kind to contribute something to the community.

Source: Developed for this research

Motivation as an antecedent of eWOM exchanges

Several studies have focused on eWOM effects on consumer behaviours in online communities of interest (Brown, et al., 2007; Chan & Li, 2010; De Valck, et al., 2009; Nelson & Otnes, 2005). However, very little attention has been paid to member motivations as the antecedent of three types of eWOM exchanges in such online communities with a view to gaining a better understanding of what facilitates those types of eWOM exchanges. It is necessary to have an initial fundamental understanding of member motivations for eWOM exchanges in order to be able to determine the driving factors that lead members to generate eWOM communication, which can affect consumer purchase decisions, customer loyalty and consumer commitment to the community. This is useful for the firms that incorporate an online community into their business model since they can understand the different member motivations that lie behind consumer behaviours.

To help put the intended contribution of this study in context, this study reviews chosen previous research on member motivations for eWOM exchanges in online communities of interest. A comparison chart of the previous studies regarding the outlines of member motivations, research methods, and findings is presented in Table 2.4. The next section will discuss the findings of previous studies on member motivations for eWOM exchanges in online communities of interest and attempt to fill the research gaps remaining from the perspective of exchanges.

Informational resource exchange (knowledge): A number of previous studies have investigated member motivations for knowledge exchange in online communities (Bonaccorsi & Rossi, 2003; Hall & Graham, 2004; Lakhani & von Hippel, 2003; Oreg & Nov, 2008; Wasko & Faraj, 2000). Self-development and reputation enhancement, which are regarded as two major extrinsic motivations for knowledge exchange in online communities (Nov, Naaman, & Ye, 2010), are considered in this study. These two motivations were found in several prior studies in online communities of practice since members seek to achieve outcomes by improving their skills, which is directed at the self and enhancing their reputation, which is directed at others (Nov, et al., 2010). However, little research in online communities of interest has examined these two motivations, and thus this study will attempt to bridge this gap.

Table 2.4: A comparison chart of previous studies on member motivations for eWOM exchanges in online communities of interest

Authors	Type of online community of interest	Motivation for knowledge exchange	Motivation for social bonding	Motivation for enjoyment exchange	Research method	Research findings
Hung and Li (2007)	Beauty products	-Instrumental need (Similar purposive exchange of products and brands) -Reputation	Not investigated	Not investigated	Interview and ethnographic analysis	<u>-Instrumental need</u> Members with similar demographics and geographies were motivated to exchange useful information about products and brands of interest, such as promotion, and brand availability. <u>-Reputation</u> Some members could gain reputation from others as celebrities since they shared product knowledge, which was perceived to be trustworthy to others.
Ma and Agarwal (2007)	Cars (Lexus IS300 sport sedan)	-Perceived identity verification (perceived confirmation of one's salient identity from others, such as helpful and funny)	Not investigated	Not investigated	Online survey	<u>-Perceived identity verification</u> When an individual believed that other members understood and confirmed his or her personal identity in the community, this could motivate a member to keep sharing knowledge and make him or her satisfied with the community.
This study	Beauty products	-Self-development -Reputation	-Problem solving support -Dissonance reduction after purchase	-Relaxation	Online survey	Seek whether member motivations will differ based on three types of eWOM exchanges (knowledge, social bonds, and enjoyment relevant to products) in an online community.

Source: Developed for this research

First, members were motivated to engage in eWOM by exchanging knowledge about products or services in online communities of practice in order to improve their skills and abilities in particular fields, such as software development (von Hippel & von Krogh, 2003; Zhao & Deek, 2004) and legal advice (Wasko & Faraj, 2005). Two prior studies in online communities of interest reported that perceived identity verification (Ma & Agarwal, 2007) and instrumental (Hung & Li, 2007) incentives motivated members to exchange knowledge about products; however, self-development motivation for knowledge exchange in this context has been ignored by scholars. Prior research suggests that member motivations for knowledge exchange in an online community of practice might be applied to an online community of interest (Wasko & Faraj, 2005). Therefore, *this study will extend prior research in online communities of practice by investigating self-development motivation, which may be an important incentive for members to exchange knowledge in an online community of interest.*

Second, some previous studies found that the personal value of gaining reputation from others was another motivational factor for members to exchange knowledge in online communities of practice (Chiu, Hsu, & Wang, 2006; Constant, Sproull, & Kiesler, 1996; Hall & Graham, 2004; Wasko & Faraj, 2000). There has not been much research using quantitative methods that investigate this motivation in an online community of interest. One notable exception is the study by Hung and Li (2007), who used an ethnographic analysis technique, and showed that members in the context of an online community of interest were motivated to exchange eWOM in terms of beauty product knowledge so as to augment their reputation. However, the use of qualitative methods may be insufficient to draw definitive conclusions from the findings, and quantitative methods, such as surveys, should be further employed to have a greater understanding of the investigation (Ardichvili, Page, & Wentling, 2003). Thus, *this study will offer a first attempt to quantitatively test reputation motivation for knowledge exchange in a similar online community of interest so as to allow for more accurate results from prior research.*

Socio-emotional resource exchange (social bonds and enjoyment): Prior research has focused on member motivations for knowledge exchange about products in online communities of interest (Hung & Li, 2007; Ma & Agarwal, 2007). Thus, there remains a need to seek a new perspective of member motivations for social bonding in the community. Further, previous study has highlighted the need for future research to investigate consumer behaviour related to individual and social interactive enjoyment in the community (Hung & Li, 2007). Thus, member motivation for enjoyment exchange will be examined in this study. Social bonds and enjoyment provide intrinsic value for members, which can influence online community usage and participation (Wang, et al., 2011). It is necessary to have an improved understanding of member incentives for exchanging eWOM (social bonds and enjoyment in addition to knowledge about products) in order to enhance the successful operation of the community. Hence, *this study will incorporate member motivations for three types of eWOM exchanges in an online community of interest*. The next section will explain and discuss the theories applied in each motivational construct for eWOM exchanges, followed by the development of the research hypotheses.

2.4.2 Member motivations for knowledge exchange

This study firstly reviews social capital literature in order to help understand the development of social capital in online communities. Social capital is defined as a set of existing and potential resources accessed through, and gained from the interconnected system of relationships owned by a person or a group of people (Nahapiet & Ghoshal, 1998). Productive resources can be generated through social relationships among people (Coleman, 1988). Thus, to possess social capital, an individual needs to have relationships with others since they are regarded as the actual resources of his or her benefit (Coleman, 1988; Portes, 1998). Putnam (2000) indicated that the Internet resulted in a decline in social capital whereas Wellman, Haase, Witte, and Hampton (2001) suggested that the Internet supplemented social capital in the absence of the increase or decrease of social capital as the Internet offered an additional way of face-to-face and telephone contacts. The Internet fills traditional communication gaps and restores online communities where people with similar interests are able to have social

interactions and cultivate social capital regardless of space and time (Wellman, et al., 2001).

Online community members are different from general Internet users in that members gather together with common interests, aims, or practices (Chiu, et al., 2006). Online communities provide a substantial stock of social capital for members (Mathwick, et al., 2008). Research supports that two broad dimensions of social capital, information or knowledge and social relations, are developed in online communities, which can result in members' commitment to the community (Mathwick, et al., 2008).

Described as "wonderfully elastic" (Lappe & Du Bois, 1997, p. 119), social capital is an asset at both individual and collective levels in online communities (Wasko & Faraj, 2000). The first perspective views social capital as a public good, a community common (Burt, 1997), that is shared and spread throughout the community without identifying possessions, and can be used by all members of a social network (Wasko & Faraj, 2000). Communities require commitments, energy, time, and resources from members with shared interests, social relations, and a sense of the common good (Etzioni, 1996). A sense of moral obligation, instead of an expectation of return, drives individuals to share resources with others in online communities (Wasko & Faraj, 2000).

The second perspective considers social capital as a private good in which an individual develops and exchanges resources for his/her personal benefits (Burt, 1997). Individuals who actively participate and help others are more likely to be motivated by personal benefits or private rewards (von Hippel & von Krogh, 2003). Research indicates that members form social capital in an online community since they perceive some private returns from the social investments, such as instrumental benefits (e.g., solving their consumption-related problems) and expressive benefits (e.g., gaining social support from friends in the community) (Mathwick, et al., 2008).

This study concentrates on social capital as an asset at the individual level since members are motivated to exchange eWOM in online communities so as to acquire some forms of personal value (Balasubramanian & Mahajan, 2001; Hennig-Thurau, et al., 2004). This study posits that members are driven to exchange eWOM since they

expect to obtain some personal benefits, such as self-development and reputation from knowledge exchange as well as problem solving support from social bonding, which will be discussed in the next section.

Self-development

Online communities engender the development of social capital by providing valuable information or advice to members and the digital information can be amplified by online social networks (Kollock, 1999). Knowledge exchange, which functions as a useful informational source for competency enhancement, occurs when consumers come in contact with each other in online communities (Gruen, et al., 2006). Such exchange enables consumers to acquire “the skills necessary to better understand, use, operate, modify, and/or repair a product” (Hennig-Thurau, et al., 2004, p. 43). Social capital provides informational benefits for individuals as they can obtain new skills or knowledge and improve information’s quality, relevance, and timeliness (Adler & Kwon, 2002). In the case of an online beauty community, members cultivate social capital by exchanging their beauty product knowledge since they are motivated to develop their beauty skills or expertise, such as shaping eyebrows, make-up for small eyelids, and lip application for thin lips.

Although members have an opportunity to lurk and free ride on the efforts of others without contributing knowledge (Kollock, 1999), social capital can prevent these actions (Mathwick, et al., 2008). “A relationship in which there is only giving and no receiving is unlikely to last” (Kollock, 1999, p. 221). Thereby, social capital influences people to turn information seeking to information giving, as they perceive that when they invest more they will receive more, and thus keep reinvesting resources (Clark & Mils, 1993).

The motivation for generating knowledge capital in online communities involves personal benefits in terms of learning opportunities and development of skills from others in a particular field (Hall, 2001; Hall & Graham, 2004). In the context of online communities of practice, several previous studies reported that members shared their knowledge with others as they were motivated to learn new things and improve their abilities and skills in some settings, such as open-source software projects (Bonaccorsi

& Rossi, 2003; Hall & Graham, 2004; Lakhani & von Hippel, 2003; Oreg & Nov, 2008; von Hippel & von Krogh, 2003; Wasko & Faraj, 2000; Zhao & Deek, 2004), legal advice (Wasko & Faraj, 2005), and open-content projects (e.g., Wikipedia) (Oreg & Nov, 2008). Research indicates that useful information or knowledge exchange occurs in various types of online communities of interest, such as wedding planning (Nelson & Otnes, 2005), Lexus IS300 sport sedan cars (Ma & Agarwal, 2007), and beauty products and tips (Chan & Li, 2010; Hung & Li, 2007); thus, it is hypothesised that self-development motivation also drives members to exchange knowledge in this type of online community.

Hypothesis 1a: There is a positive relationship between self-development and knowledge exchange in an online community of interest.

Reputation

Social capital theory can help researchers understand reputation motivation for knowledge exchange. Knowledge is defined as “that which is known” (Grant, 1996, p. 110), and is viewed as a private good, which is embedded in individuals and inseparable from its human actor (Wasko & Faraj, 2000). When individuals perceive that knowledge is owned by themselves, there is more likelihood that they are motivated by self-interest so as to gain intangible returns, such as status, or self-worth (Jarvenpaa & Staples, 2000).

Based on the norm of reciprocity exchanges, givers may not receive knowledge from the seekers. The repayment will be in the form of gaining status, or approval from the seeker or from the group as a whole which is the effect of social capital (Wasko & Faraj, 2000). In online communities, the increase of members’ status and prestige depends on some conditions, such as high quality information, and impressive technical details in their answers, a favour to help others, and elegant writing (Wang & Fesenmaier, 2004b).

Gaining reputation from others is the second incentive for members to exchange knowledge in online communities. Research supports that the personal benefits of earning respect, reputation, and status motivate people to develop social capital by

exchanging knowledge, such as software development, with others in online communities of practice (Chiu, et al., 2006; Constant, et al., 1996; Hall & Graham, 2004; Wasko & Faraj, 2000). To date, little research of a quantitative nature has investigated this motivation in an online community of interest. One notable exception is the study by Hung and Li (2007), who conducted an ethnographic analysis and found that members in an online community of interest exchanged eWOM in terms of beauty product knowledge, such as the effectiveness of products, so as to gain reputation from others as beauty gurus. However, using mainly qualitative methods may not provide sufficient evidence; thus, the quantitative survey-based method is further employed to test the hypothesis and see whether this study will support the same results (Ardichvili, et al., 2003) as Hung and Li's (2007) study. Therefore, it is hypothesised that reputation motivation drives members to exchange knowledge in an online community of interest.

Hypothesis 1b. There is a positive relationship between gaining reputation from others and knowledge exchange in an online community of interest.

2.4.3 Member motivations for social bonding

Problem solving support

This study applies social capital theory to help explain individuals' expectation of gaining problem solving support through bonding social capital. Bonding social capital in an offline environment is based on strong ties between like-minded people, such as close friends or family, who can provide emotional support (Putnam, 2000). The Internet also enables online users with similar interests to build friendships with others in online communities (Ellison, Steinfield, & Lampe, 2007). Although online communities are not primarily designed to create social bonds among members, they are often likely to do so (Wellman & Gulia, 1999). This reasoning suggests that online communities will often commence building a social core, independent of commercial or instrumental interests (Balasubramanian & Mahajan, 2001).

Social capital is regulated by the norm of reciprocity (Mathwick, et al., 2008), which is the norm of collaboration, cooperation, and willingness of people to provide resources when others need them (Rheingold, 1993). The norm of reciprocity encourages

individuals to work together, understand, and empathise rather than consider others as strangers, rivals, or potential opponents (Newton, 1997, p. 576).

Individuals expect that they will be repaid at some point in the future when they form social relationships with others (Onyx & Bullen, 2000). Online community members receive a broad range of support from others in return for social bonding, such as emotional or problem solving support (Wellman & Gulia, 1999). In the case of an online beauty community, members may be driven to accumulate bonding social capital by talking to others about beauty matters, such as their favourite beauty products, since members expect that when they have some problems, such as acne breakouts, they could draw on resources from other members in the form of providing problem solving support when they are in need.

The development of social relations offers members social support value in terms of helping each other solve problems in online communities (Mathwick, et al., 2008). Several studies found that social bonds served as an important source of reciprocating behaviors in online communities (Williams, 2006), such as discussion forums (Chan & Li, 2010; Schindler & Bickart, 2005) and an online social networking site “Facebook” (Ellison, et al., 2007; Ellison, Steinfield, & Lampe, 2011). Additionally, research provides evidence that the expectation of receiving help from others when members are in need is an important incentive for members’ contribution to an online community of interest (Wang & Fesenmaier, 2004b). As social bonds build social capital that members can retrieve at some point in the future (Mathwick, et al., 2008), members are motivated to build close social relationships with others in an online community of interest since they expect that when they need help, others will help them solve their problems. Thus, it is hypothesised that

Hypothesis 2a. There is a positive relationship between problem solving support and social bonding in an online community of interest.

Dissonance reduction after purchase

Cognitive dissonance theory is applied in this study in order to explain member motivation for social bonding. Festinger (1957) explained cognitive dissonance as a psychologically uncomfortable state arising from incompatibility among a person's knowledge, behavior, feelings, or desires, which then motivates that person to reduce the dissonance. Consumers face a problem with selecting one alternative from the list of product choices since it is difficult to evaluate which alternative is superior to the others across all characteristics (Nadeem, 2007). After a purchase, consumers sometimes experience cognitive dissonance as they may regret making a purchase or may feel that another alternative would have been preferable (Nadeem, 2007).

Cognitive dissonance after purchase can be reduced by support from friends, family (Hsu & Lin, 2006; Mitchell & Boustani, 1994), or other consumers (Bailey, 2005; Hennig-Thurau & Walsh, 2003). Montgomery and Barnes (1993, pp. 206-207) suggested that "dissonant consumers need reassurance (e.g., support) that a wise purchase decision has been made". Consumers have conflicting beliefs in information from several sources, such as a friend's product recommendation (personal sources) versus a product advertising (commercial sources). For minimising their cognitive dissonance after purchase, consumers value neutral or unbiased information sources about product choices, such as other customers' views rather than commercial sources (Hennig-Thurau & Walsh, 2003).

Support from friends, family, or other consumers helps individuals reduce cognitive dissonance after purchase in both online and offline environments. In face-to-face settings, Mitchell and Boustani (1994) as well as Hsu and Lin (2006) found that the advice of friends and family was important in considering whether consumers had made the right purchase decision. In online contexts, Schindler and Bickart (2005) showed that members were motivated to use online communities of interest in the form of discussion forums so as to gain confirmation after purchase from others. Members build close social relationships with others and view them as friends on a discussion forum (Chan & Li, 2010). Thus, the desire for dissonance reduction after purchase is another driving

factor for members to share social bonds in an online community of interest, and it is hypothesised that

Hypothesis 2b. There is a positive relationship between dissonance reduction after purchase and social bonding in an online community of interest.

2.4.4 Member motivation for enjoyment exchange

Relaxation

A synthesis of uses and gratifications (U & G) with flow theories can assist this study in understanding relaxation motivation for enjoyment exchange. U & G theory is grounded in a communication research paradigm and was originally developed and employed by mass media communication research (Katz, 1959; Klapper, 1963) in order to understand individuals' motivations toward media choice or preference based on user gratification (Blumler & Katz, 1974; Katz, Haas, & Gurevitch, 1973). Researchers have applied uses and gratifications theory to a wide range of online communities, such as blogs, discussion boards, MySpace, and Facebook in order to have a better understanding of what drives member satisfaction and their decision to participate in such communities (Chung & Kim, 2008; Dholakia, Bagozzi, & Pearo, 2004; Grace-Farfaglia, Dekkers, Sundararajan, Peters, & Park, 2006; Leung, 2001; Park, Kee, & Valenzuela, 2009; Raacke & Bonds-Raacke, 2008).

Broad motivations found by previous research on the uses and gratifications of the Internet are not only information exchange and social interactions, but also enjoyment exchange resulting in more involvement with the online experience (Stafford, Stafford, & Schkade, 2004). Entertainment is regarded as a chance for individuals to avoid the condition of being bored in daily life (Sherry, 2004) and experiential engagement with entertainment is directly related to an enjoyable experience (emotional enjoyment) (Oliver & Wooley, 2011). "Unlike media gratifications relating to learning or social utility, the entertainment gratifications tap a type of media enjoyment that is both arousing and relaxing and can be used to filter out the cares and concerns of everyday life" (Sherry, 2004, p. 330). One of the major motivations for consumers to use media

in the form of online communities is to satisfy their need for relaxation (Dholakia, et al., 2004). However, Sherry (2004) indicated that uses and gratifications theory did not provide an explanation of how the enjoyment occurs through media use. Thus, a synthesis of uses and gratifications with flow theories can facilitate an understanding of media enjoyment (Sherry, 2004). The next section will use flow theory to explain the occurrence of media enjoyment.

The concept of flow is developed by Csikszentmihalyi (1988b) in order to provide an explanation of what makes experience enjoyable. The elements of flow comprise clear goals, immediate feedback, focused concentration, a sense of control, distortion of time (a feeling of time passing faster than normal due to experiencing enjoyment), transcendence of the self (a sense of involvement in a group), and loss of self-consciousness (decreased concern for self) (Csikszentmihalyi, 1988a). The combination of these elements leads individuals to enter the flow state when they have an autotelic motivation (a feeling of something that is worthwhile for doing) and are intrinsically motivated with the goal of experience rather than external rewards (Csikszentmihalyi, 1990).

Flow experience exists in online community environments (Shoham, 2004). Online communities facilitate members' enjoyable social interactions with others (Wang & Fesenmaier, 2004b). Members enter the flow state by participating in enjoyable activities in terms of chatting and sharing fun photos or stories with others (Schindler & Bickart, 2005; Shoham, 2004). These activities appear in online communities, such as an online beauty community where members can share their humorous photos and experiences with beauty products, such as fun make-up looks for parties or fun wig experiences.

Sherry (2004) reveals that based on a synthesis of the theories of uses and gratifications with flow in traditional media, the use of media can allow people to achieve a flow state owing to the following reasons. First, prior research on uses and gratifications supports that individuals have enjoyable experiences from media use. Next, when persons are gratified to use media for relaxation, such as escaping and forgetting some

responsibilities or problems, the elements of flow regarding concentration and loss of self-consciousness emerge in media use. Additionally, some have experienced the distortion of time. Finally, the uses and gratifications research indicates that people are at least intrinsically motivated to use media (Sherry, 2004).

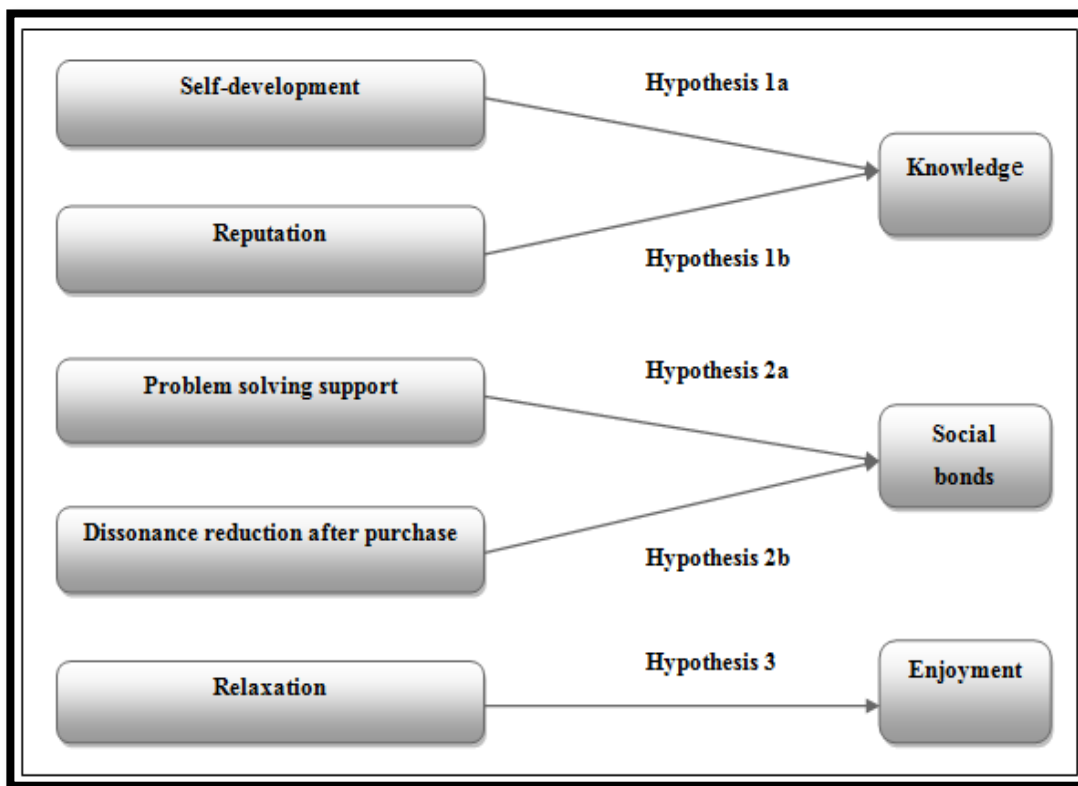
Previous studies support that members use media in the form of online communities in order to fulfil their gratifications related to relaxation (Cheung & Lee, 2009; Dholakia, et al., 2004; Leung, 2001). Leung (2001) revealed that members who desired to escape problems and stay away from what they are doing tended to participate more frequently in an online community. In addition, Dholakia et al. (2004) found that members had a higher relaxation motive for using small-group-based communities (member groups with strong social relationships) when compared to network-based online communities (member groups with weak social relationships). Further, Cheung and Lee (2009) showed that a relaxation incentive of using an online community impacted on the group norms (a group of members having the same values) in the community. With regard to the flow experience in online community environments, previous research found that members experience enjoyment through chatting with others (Shoham, 2004). Additionally, Chan and Li (2010) indicated that members had an enjoyable experience when they interacted with others about products in an online community of interest. Based on a synthesis of the theories of uses and gratifications with flow in traditional media suggested by Sherry (2004), members are motivated to use an online community of interest for relaxation since they can experience enjoyment in this community, and thus it is hypothesised that

Hypothesis 3. There is a positive relationship between relaxation and enjoyment exchange in an online community of interest.

2.5 Conceptual framework and research hypotheses

The meeting point of the two parent disciplines (online communities of consumption and antecedents of eWOM) is the immediate discipline (member motivations for eWOM exchanges in online communities). This helps address the research question “What are the driving factors for members to exchange eWOM in an online community?” From the evaluation of the literature and the development of five hypotheses in the previous section, a conceptual framework for testing the relationships between independent (member motivations) and dependent (eWOM exchanges) variables is constructed. It is proposed that members are driven by self-development and reputation motivations for knowledge exchange. Further, problem solving support and dissonance reduction after purchase motivate members to share social bonds. Finally, relaxation is an incentive for members to exchange enjoyment in an online community of interest. The conceptual framework and the five hypotheses are presented in Figure 2.7.

Figure 2.7: Conceptual framework and research hypotheses of member motivations for eWOM exchanges in an online community of interest



Source: Developed for this research

2.6 Conclusion

This chapter reviewed the literature based on the two parent disciplines. The first parent discipline provided the discussion of online communities of consumption as eWOM channels, while antecedents of eWOM were discussed in the second parent discipline. The immediate discipline of member motivations for eWOM exchanges in online communities was then synthesised based on each review of the two parent disciplines. Further, the research gaps remaining from prior studies were identified, and several theories were applied to help understand each motivational factor for eWOM exchanges, followed by the hypothesis development. Finally, the conceptual framework was constructed and the five hypotheses were included in the framework. In the next chapter, the research methodology, utilised to address the research question and test the hypotheses, will be described and justified.

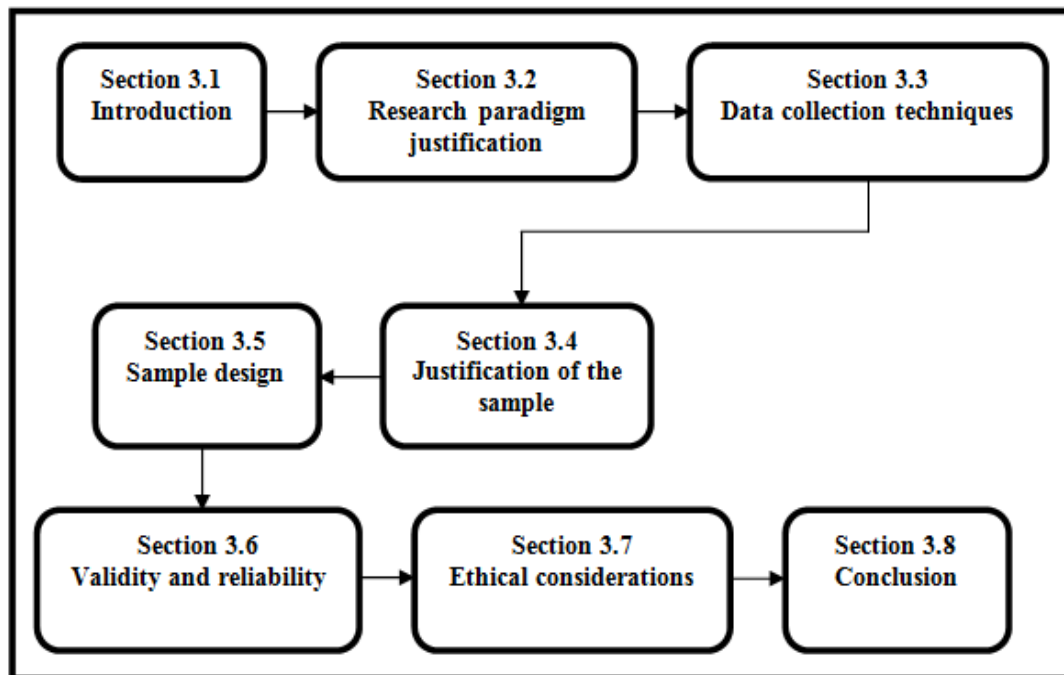
CHAPTER 3

Research design

3.1 Introduction

This chapter discusses and justifies the research paradigm and research method that is used in order to address the research question discussed in Chapter 2. There are seven sections in this chapter, as shown in Figure 3.1. First of all, this chapter commences with the justification of the research paradigm and research method, which is presented in Section 3.2. Section 3.3 will then discuss data collection techniques in terms of the use of an online survey as well as questionnaire development and design. Next, the sample of this study will be justified in Section 3.4. Further, a discussion of sample design as well as validity and reliability issues will be given in Section 3.5 and Section 3.6. Finally, Section 3.7 will discuss how to address ethical issues in this study and Section 3.8 will feature the conclusion.

Figure 3.1: Outline of Chapter 3



Source: Developed for this research

3.2 Research paradigm justification

The purpose of this section is to explain and justify the research paradigm and method. Suppe (1977) defined a paradigm as a set of assumptions made by researchers in order to examine circumstances existing in the world. Further, a conceptual and philosophical framework is developed by these assumptions for the study of any science. There are four categories of research paradigms; critical theory, constructivism, realism, and positivism (Guba & Lincoln, 1994). It is necessary to have a clear understanding of the nature of each paradigm as it can allow researchers to evaluate what issues should be addressed and what techniques are appropriate to manage the problems (Deshpande, 1983). Thus, each of the four research paradigms will be explained and discussed in the next section in order to assist the researcher in drawing arguments and justifying the most appropriate paradigm for this study.

First, *critical theory* is related to historical studies investigating the transformation of social facts in human societies (Belk, 2006) and researchers aim to find many subjective realities (Guba & Lincoln, 1994). This paradigm is inappropriate since the researcher attempts to find a single reality concerning member motivations for eWOM exchanges rather than transform values, such as emotional or social values of members who participate in an online community. Next, *realism* is relevant to a reality that is difficult to apprehend, and thus researchers rely on a participant's perception triangulated with other perceptions in order to discover a single reality (Healy & Perry, 2000). This paradigm is inappropriate as it is unnecessary to explore the influence of member motivations for eWOM exchanges since this phenomenon has established constructs with respect to consumer motivation and behaviour. There is no need for triangulation to find the truth regarding the causal relationships between member motivations and eWOM exchanges. Further, *constructivism* is linked to multiple realities that exist in people's minds, and researchers need to be attached to participants so as to construct realities (Deshpande, 1983). This paradigm is inappropriate since a reality regarding member motivations for exchanging eWOM is not subjective as it can be inferred outside the context from previous studies on consumer motivation. The researcher does

not need to use qualitative methods to gain insights into this phenomenon (Mason, 2006). Finally, *positivism* is related to objective and apprehensible reality whereby researchers are detached from objects to view a reality from the outside (Bryman, 1984). Positivism is the most appropriate of the four paradigms for this study since the number of research on consumer motivation is sufficient to be a guideline for the researcher to understand the research problem. Further, the measurement of the causal relationships between variables is clearly of positivism (Thompson & Perry, 2004) and established variables are evident in the current body of literature. The use of surveys and the development of hypotheses can enable the researcher to seek true findings for this study (Healy & Perry, 2000). Further information on each research paradigm and a summary of the justification of the research paradigm for this study are shown in Table 3.1.

3.3 Data collection techniques

An online survey was employed for this study in order to address the research problem. In the following section, the appropriateness of utilising a web-based survey will be explained. In addition, the advantages and disadvantages of a web-based survey will be discussed, followed by the ways to moderate any issues arising from the use of this quantitative method.

Table 3.1: Justification of the research paradigm for this study

Paradigm	Critical theory	Realism	Constructivism	Positivism
Ontology	A reality is created and shaped by social, economic, ethnic, political, cultural, and gender values, crystallised over time.	A reality exists in a complex social phenomenon that is difficult to apprehend.	Multiple realities exist in people's minds in a particular context.	An objective and apprehensible reality in social phenomena. Cause-effect relations.
Epistemology	Researchers are attached to participants to find a subjective reality and regarded as a "transformative intellectual" aiming to help people change the world for themselves and build new theories.	Researchers rely on a participant's perception triangulated with other perceptions to find a single reality. Researchers primarily build theories before testing them.	Researchers are immersed in phenomena to interpret meanings from an insider's view. Theory building.	Researchers are detached from objects to view reality from the outside. Theory testing.
Methodology	Dialogic methods (qualitative mixed methods)	Triangulation, qualitative methods, and structural equation models	Qualitative methods (e.g., interviews, observations)	Quantitative methods (e.g., surveys, experiments)
Justification of the research paradigm for this study	<p>Inappropriate</p> <p>The researcher attempts to find a single reality concerning member motivations for eWOM exchanges rather than transform values, such as emotional or social values of members who participate in an online community.</p>	<p>Inappropriate</p> <p>It is unnecessary to explore the influence of member motivations for eWOM exchanges since this phenomenon has established constructs with respect to consumer motivation and behaviour. There is no need for triangulation to find the truth regarding the causal relationships between member motivations and eWOM exchanges.</p>	<p>Inappropriate</p> <p>A reality regarding member motivations for exchanging eWOM is not subjective as it can be inferred outside the context from previous studies on consumer motivation. Qualitative methods are not needed to use to gain insights into this phenomenon.</p>	<p>Most appropriate</p> <p>The number of research on consumer motivation is sufficient to be a guideline for the researcher to understand the research problem. The measurement of the causal relationships between variables is clearly of positivism. Established variables are evident in the current body of literature. The use of surveys and the development of hypotheses can enable the researcher to seek true findings for this study.</p>

Source: Developed for this research from Deshpande (1983); Bryman (1984); Guba and Lincoln (1994); Murray and Chanberlain (1999); Healy and Perry (2000); Thompson and Perry (2004); Belk (2006); Mason (2006)

3.3.1 Use of online surveys

An online survey is often employed for primary data collection in researching online communities (Chung & Kim, 2008). This study aimed to investigate member motivations for exchanging eWOM related to beauty products in an online beauty community in the form of a discussion forum. Thus, an online survey was conducted so as to gain data from forum members. The following section will discuss the use of a web-based survey regarding appropriateness, advantages, disadvantages, and potential solutions and a summary of the discussion is shown in Table 3.2.

Appropriateness of the use of online surveys

An online survey is appropriate for this study owing to its accessibility of particular populations (Van Selm & Jankowski, 2006; Wright, 2005). This method allowed the researcher to approach a sample from a population of approximately 5,700 members, who participate in a popular beauty forum in Australia; “beautyheaven”. The information about online beauty community websites was gathered from ‘Beauty Marked’, an Australian website featuring links to a range of beauty websites. The popularity of this forum was evaluated by the number of posts made by forum members (381,982 posts as of February 2012).

This study focused on a beauty and personal care industry as it is one of the important business industries in Australia. According to the data from the Australian Bureau of Statistics (2011), the trend estimate for pharmaceutical, cosmetic and toiletry goods retailing rose 0.5 percent in September 2011 compared with September 2010. Consumer expenditure on beauty and personal care products in Australia was worth AUD\$6,024.9 million in 2010 and is expected to rise to AUD\$6,833.3 million in 2014, according to Euromonitor International (2011a).

Table 3.2: Discussion of the use of a web-based survey for this study

Appropriateness	Advantages	Disadvantages	Potential solutions
<p><i>Only way to approach samples</i> Names and e-mail addresses of respondents were not provided on a beauty forum. Posting a link of the web-based survey on the forum was the only way to solicit forum members to participate in the survey.</p>	<p><i>Most effective and efficient way to reach respondents</i> Reach forum members, who only exist in an online context.</p> <p><i>Geographical coverage</i> Access forum members living in different parts of Australia.</p> <p><i>Speed of delivery and response</i> Deliver the web-based survey and obtain responses from the forum members within a short time frame.</p> <p><i>Cost effectiveness</i> Save costs for printing or postage and for transferring data to a database.</p>	<p><i>Sample selection</i> Samples were self-selected. This raised a question whether respondents on the forum were representative and could be generalised to a population.</p> <p><i>Low level of response rate</i> Convenience given to forum members could make them postpone the survey and then forget to complete it.</p>	<p><i>Use non-monetary incentives to moderate the sample selection issue</i> Offer a summary of the results to forum members, who were interested in the research topic and volunteered to fill out the questionnaire.</p> <p><i>Use monetary incentives to increase response rates</i> Offer a draw for one of eight AUD\$25 prizes to respondents on the forum.</p> <p><i>Send follow-ups to increase the response rates</i> Send follow-up notices to remind the respondents to complete the survey.</p>

Source: Developed for this research from Cook, Health, and Thompson (2000); Ilieva, Baron, and Healey (2002); Berrens, Bohara, Jenkins-Smith, Silva, and Weimer (2003); Bosjnak and Tuten (2003); Granello and Wheaton (2004); Tourangeau (2004); Wang and Fesenmaier (2004b); Duffy, Smith, Terhanian, and Bremer (2005); Evan and Mathur (2005); Deutsdens, De Jong, De Ruyter, and Wetzels (2006); Gruen et al. (2006); Van Selin and Jsmkowski (2006); Lefever, Dal, and Matthíasdóttir (2007); Chan and Li (2010)

The rising growth of sales in some toiletry and cosmetic product categories is a result of increasing consumer trends in Australia. For instance, according to a national survey by the Cartoon Network in early 2010, researching 1,950 viewers aged 7-14 years, one in three Australian girls aged 13 to 14 years usually wears make-up due to concerns about their physical appearance (Euromonitor International, 2011b). Twenty-something Australians are also worried about their body image (Euromonitor International, 2011c). Further, aging Australians tend to purchase anti-aging products in order to reduce their wrinkles (Euromonitor International, 2011d).

Australian women today consider the Internet an important medium to search for beauty information (SheSpot, 2011). According to a national survey conducted on 3,670 Australian women between February to March 2011, 31 percent of women use forums to find answers related to beauty topics. There is continued growth in the trend of women turning to online beauty resources in order to improve their appearance (SheSpot, 2011). Thus, a beauty forum serves as the important context of this study to answer the research question.

E-mail or web-based surveys

Online data collection is generally composed of e-mail and web-based surveys (Granello & Wheaton, 2004). Based on e-mail surveys, respondents are solicited to complete questionnaires embedded in electronic mails. Respondents will click on the “reply” button, fill the surveys out, and then click on the “send” button. In contrast, web-based surveys are survey instruments with which respondents are approached (either by traditional mail, e-mail, telephone, or via other websites) to complete questionnaires linked to a website (Granello & Wheaton, 2004). When respondents complete the survey, they will click on the “submit” button. A web-based survey was more appropriate for this study than an e-mail survey since due to the privacy policy of the community website, personal information, such as names and e-mail addresses of members, was not available. To gain access to these members in such a way as to respect the anonymity and confidentiality of the respondents, a thread was posted on the beautyheaven forum as an invitation, requesting them to participate in the survey.

Advantages of web-based surveys

Effective and efficient way to reach respondents: Forums only exist in Internet environments (Van Selm & Jankowski, 2006). Previous studies use web-based surveys to reach a group of consumers who discuss similar topics of consumption-related interests in online communities (Chan & Li, 2010; Cheung & Lee, 2012; Sun, Fang, & Lim, 2012). Hence, a web-based survey was the most effective and efficient instrument used to solicit forum members with a particular interest in beauty topics to report on their motivations for exchanging eWOM. An online survey screenshot of this study is shown in Appendix 3.1.

Geographical coverage: The Internet allows the researcher to reach the population under study, irrespective of their geographical locations (Evans & Mathur, 2005; Van Selm & Jankowski, 2006). Therefore, a web-based survey was conducted in this study so as to gather data from a relatively large number of respondents, who were forum members living in different parts of Australia at a single point in time.

Speed of delivery and response: A web-based survey can be administered in a timely and effective manner (Lefever, et al., 2007). Responses are collected relatively fast (Berrens, et al., 2003; Duffy, et al., 2005) after respondents complete and submit online surveys (Evans & Mathur, 2005). Therefore, with a limited timeframe to undertake this study, a web-based survey was employed in order to efficiently obtain data from forum members within a short time frame.

Cost effectiveness: Web-based surveys have lower costs than traditional surveys (Tourangeau, 2004). There is no need to spend money for printing or postage (Deutskens, et al., 2006; Ilieva, et al., 2002). Further, survey administration is inexpensive since responses are automatically transferred to the data analysis software (Evans & Mathur, 2005). Thereby, the researcher could save money by conducting a web-based survey with a relatively large number of forum members.

Disadvantages of web-based surveys

Sample selection: It is very difficult to select samples through the Internet since personal information of individuals participating in online environments is often unavailable to the researcher (Duffy, et al., 2005; Lefever, et al., 2007; Tourangeau, 2004). Therefore, a conventional approach to reach the samples is to provide a link to the web-based survey for respondents (Lefever, et al., 2007). The research on online communities inevitably faces the problem of self-selected samples, and thus it is difficult to address the question of whether respondents and non-respondents in the community have different characteristics (Wang & Fesenmaier, 2004b). As forum members could not be randomised, this can influence self-selection bias and raise the question whether the samples were representative and generalisable to a population.

Response rate: A key issue related to web-based surveys is a low response rate (Wyatt, 2000). Although respondents can complete the online questionnaire at a time convenient for themselves, and decide to complete and return it whenever they like (Duffy, et al., 2005; Evans & Mathur, 2005), some respondents may delay entering the survey and consequently forget to complete it (Lefever, et al., 2007). The freedom given to forum members could affect low response rates. Subsequent threads, posted by the forum members, may move the thread featuring the hyperlink to a questionnaire down to the bottom or the next page of the forum, resulting in members not noticing the thread or forgetting to participate in the survey. Some potential solutions to these issues are explained in the next section.

Moderating the potential weaknesses of web-based surveys

Incentives: This study offered two types of incentives to forum members: monetary and non-monetary incentives. Bosnjak and Tuten (2003) indicated that an offer of prize draws made respondents more willing to participate in online surveys and more likely to provide complete responses. This study adopted Chan and Li's (2010) method by offering monetary incentives to reward members' participation in a web-based survey. Respondents were invited to enter a draw for one of eight AUD\$25 awards. Further, Cook et al. (2000) showed that topic salience had a significant impact on web-based

survey response behaviour. Hence, a promise of survey results was offered to the respondents, who are interested in the research topic (Ilieva, et al., 2002). This study adopted Gruen et al.'s (2006) approach by offering a brief report on the research findings as an inducement for forum members to enter a web-based survey. This would help moderate the issue of representativeness of the samples.

Follow-up notices: Sending follow-up reminders to respondents affects the response rate of web-based surveys (Cook, et al., 2000). Follow-up notices are re-sent to target respondents after distributing the original online questionnaire in order to decrease the number of respondents who, having decided to finalise a survey at a later time, subsequently forget to complete it (Van Selm & Jankowski, 2006). This survey remained available for a month, and reminder threads were sent every two weeks after distributing the original online questionnaire on the beautyheaven forum. The number of follow-up contacts was taken into account since sending out multiple follow-ups has diminishing returns in which the potential respondents feel irritated or annoyed, and then reject the survey (Cook, et al., 2000). The next section will explain the processes of questionnaire development for this study.

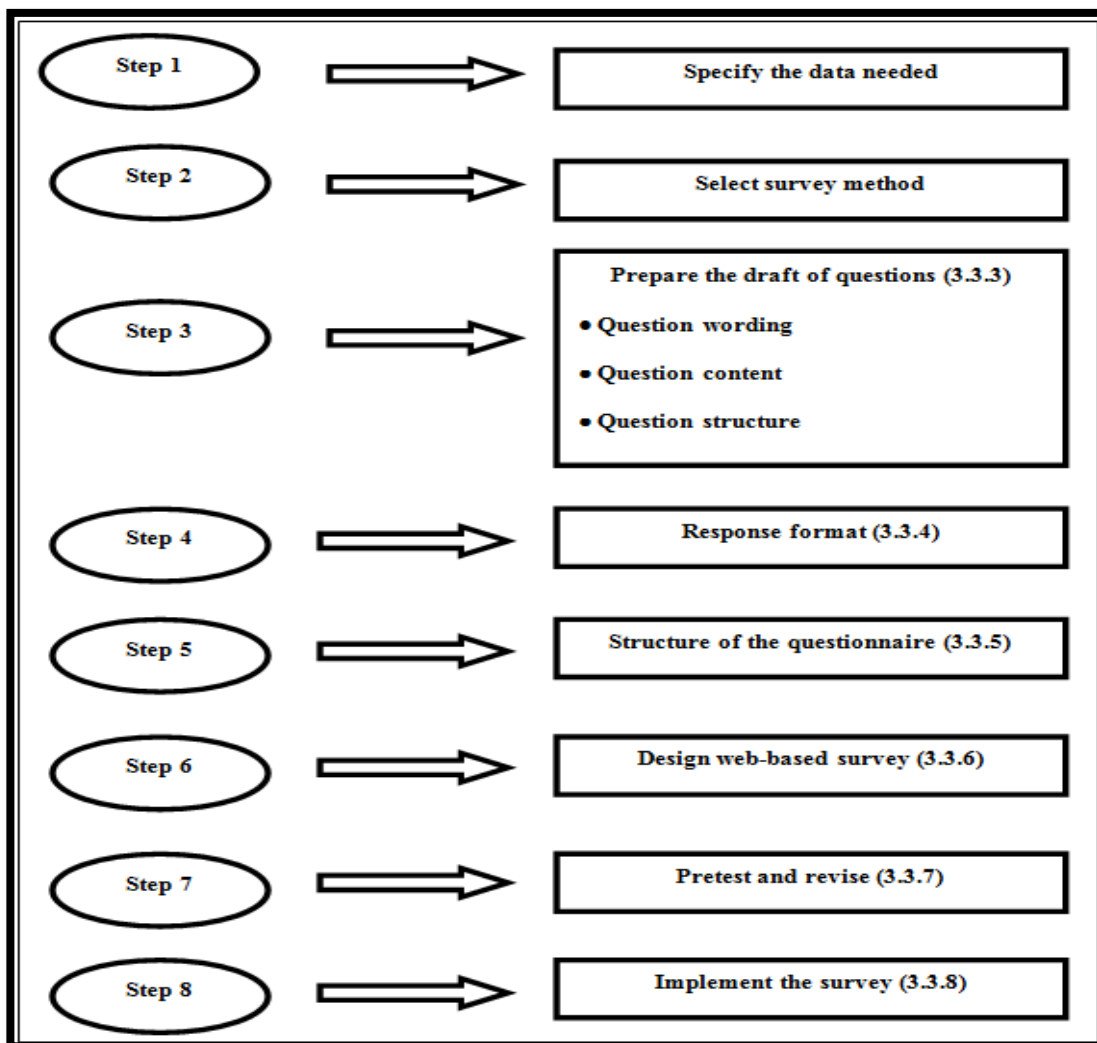
3.3.2 Questionnaire development

Eight steps of questionnaire development processes have been adapted for this study as outlined in Figure 3.2 (Davis, 2000; Frazer & Lawley, 2000; Hair, Bush, & Ortinau, 2003; Malhotra, Hall, Shaw, & Oppenheim, 2006; McDaniel & Gates, 2005). The first step in questionnaire design for this study was to determine the research objective and then further refine it into the research question and hypotheses (Frazer & Lawley, 2000). Next, an online survey was chosen as an appropriate data collection method for this study, as previously discussed in Section 3.3.1. The following step was to prepare the draft of questions in terms of wording, content, and structure summarized in Section 3.3.3. Then, the response format (Section 3.3.4) and the structure of the questionnaire (3.3.5) needed to be determined. Once a web-based survey was designed (Section 3.3.6), the questionnaire was pretested (Section 3.3.7) and revised (Section 3.3.8) so as to indicate and solve potential problems (Malhotra, et al., 2006). The questionnaire design will be discussed in the following section.

Questionnaire design

The design of self-administered web questionnaires can affect data quality in terms of measurement and non-response error (Manfreda, Batagelj, & Vehovar, 2002). Respondent-friendly design, which is the construction of a web questionnaire that potentially motivates respondents to fill out a survey and answer questions accurately, can help minimize the measurement and non-response error in surveys (Dillman, Tortora, & Bowker, 1998). Therefore, in order to improve the survey data quality of this study, each step of the questionnaire design was taken into important consideration and discussed in the following sections.

Figure 3.2: Questionnaire design processes



Source: Developed for this research from Davis (2000); Frazer and Lawley (2000); Hair et al. (2003); McDaniel and Gates (2005); Malhotra et al. (2006)

3.3.3 Step 3 - structure, content of questions, wording

Questionnaire design features in terms of wording, structure (Couper, Traugott, & Lamias, 2001), and content of questions (Schwarz, 1999) influence the behavior of respondents in web surveys. Thus, in order to encourage respondents to complete surveys, and answer questions accurately and honestly, questionnaire design principles were briefly explained, and each was incorporated into the question design for this study as can be seen in Table 3.3.

3.3.4 Step 4 – response format

Prior research indicates that closed questions improve the validity of survey data more than open questions in terms of correctly categorising respondents and demonstrating the construct validity of the relationships between variables (Schuman & Presser, 1979). Two types of closed questions were used in this study: matrix questions with seven-point likert scale and multi-chotomous questions. Research suggests that “the quality of measurement will improve up to some point, say up to 7 categories, but beyond that information actually will be lost because the scale points tend to be meaningless” (Alwin, 1997, p. 322). Thus, in this online survey, a seven-point likert scale was used in Section 1 and 2 in order to ask forum members how strongly they agreed or disagreed with statements regarding each dimension of their activities on a forum and their motivations for participating in such activities. Section 3 used multi-chotomous questions to ask forum members to report their demographic profiles.

Table 3.3: Good questionnaire design principles

Principles of good question design	Used in this research
Structure	
Is the question brief?	Each question was kept short and retained its intent. For example, question 6 “There are members I can turn to for advice about the right solutions for me. The words ‘for me’ were used instead of ‘to my questions’ as they were shorter and provided the same core meaning.
Is the questionnaire divided into several parts?	In order to let respondents know how the survey works and what they are supposed to do, questions were divided into three sections: forum activities, motivations for doing such activities, and demographic profile.
Is the question too demanding?	It was quick and easy for respondents to answer questions by using radio buttons and check boxes; however, respondents were asked to answer question 9 in their own words regarding their residence unless the choices of their geographical locations were provided.
How will the question be asked?	Questions were answered with minimum effort and maximum measurement level by asking respondents a series of two perception dimensions (forum activities and motivations for doing such activities) with a 7 point scale.
Is the question applicable to all respondents?	All questions were related to all respondents who were members of a beauty forum as can be seen in Appendix 3.2.
Content	
Is the question too sensitive?	Some respondents may feel that some demographic questions are sensitive; therefore, the questions were placed at the end of the survey so as not to influence respondents to reject the survey and exit early.
Does the question rely too much on respondents’ memory?	The capability of respondents for recalling certain details was taken into account; thus, they were asked to answer general questions related to their use of a forum.
Has too much knowledge been assumed?	Questions were directed at forum members who are interested in beauty products and topics; hence, respondents were expected to answer the questions they know about their use of a forum.
Are the questions associated with the research objective?	In order to address the research objective, questions were developed to be consistent with hypothesis testing. For example, the question ‘I exchange knowledge about beauty topics because it helps me learn new tips and how-tos’ fits in with Hypothesis 1a.
Are there any questions from the literature that could be adapted for this study?	With a limited timeframe to undertake this study, previously validated and published measurement items were used to help the researchers save time to develop and validate new measurement items. However, it is difficult to find existing items that aligns exactly with the research objective. Thus, all questions were adapted from previous studies to help address the research problem regarding member motivations for exchanging eWOM in an online community, as can be seen in Appendix 3.3.
Is the question pretested?	Questions were pretested by two academic researchers in order to ensure that wording and clarity of questions were apparent to all respondents. For example, after pre-testing question 8 which initially asked ‘it is a pleasant rest from my day’, the word ‘rest’ was changed to be ‘break’ so that the sentence made better sense in the context of this study.

<u>Wording</u>	
Will the words be uniformly understood?	Care was taken to ensure that survey language was simple, direct, and familiar to beauty forum members. For example, the words 'beauty guru' in question 5 were used as they were commonly understood by respondents who were interested in beauty topics.
Is it a double question?	Each of eight questions regarding f members' activities and their motivations for doing such activities were divided into five items. These items entailed only one partl, idea or meaning to ensure that respondents answered only one aspect of each item.
Is the question biased?	Questions were pre-tested and revised several times to reduce possible bias. For example, question 6 'Other members would help me if I had a similar problem and they may know how to solve it' were considered too long. Therefore, the words 'and they may know how to solve it' were removed to provide respondents with minimal effort to answer the question.
Can the question stand alone?	The sentences of questions were complete and had clear meanings. For example, the first item in question 1 was 'I like to come to the forum to exchange useful beauty information. In the four following items, the word 'beauty' was omitted in front of the words 'tips and how-tos', 'product experiences', and 'product category' since respondents could understand that the subsequent items were related to beauty.
Does the question lead the respondents?	Leading questions were avoided in order to encourage respondents to select an answer matching their true opinions rather than an accepted or better answer. Care was taken with regard to the wording to ensure that forum members answered how strongly they agreed or disagreed with statements regarding their motivations for doing activities on a forum, based on their true experiences or opinions.

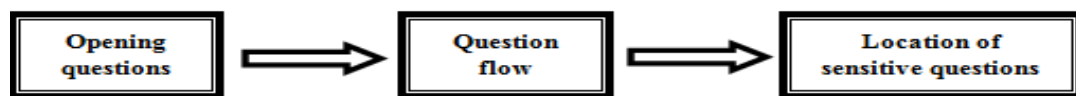
Source: Developed for this research from Davis (2000); Frazer and Lawley (2000); Malhotra and Peterson (2001); Hair et al. (2003); McDaniel and Gates (2005); Cooper and Schindler (2006); Luck (2006); Malholtra et al. (2006); Zikmund, Ward, Lowe, and Winzar (2007)

3.3.5 Step 5 – structure of the questionnaire

Question sequence

Although question order effects are not ubiquitous, it was important to carefully create a flow of question order in the construction of every survey (McFarland, 1981). This study takes into account three major areas of the question sequence: opening questions, question flow, and location of sensitive questions (Warwick & Lininger, 1975), which are shown in Figure 3.3 and are explained in the next section.

Figure 3.3: Question sequence



Source: Developed for this research from Warwick and Lininger (1975)

Opening questions: The first few questions should be easy and interesting so as to overcome respondents' suspicions about the survey's objective (Iarossi, 2006). In this survey, easily understood common language was used in Section 1 (Q1 to Q3 related to eWOM activities). This would arouse their interest in survey participation.

Question flow: After answering Q1 to Q3 in Section 1, respondents were required to answer Q4 to Q8 in Section 2 which was the main section of this survey. The questions were designed to test the research hypotheses regarding member motivations for participating in three types of eWOM activities on a forum.

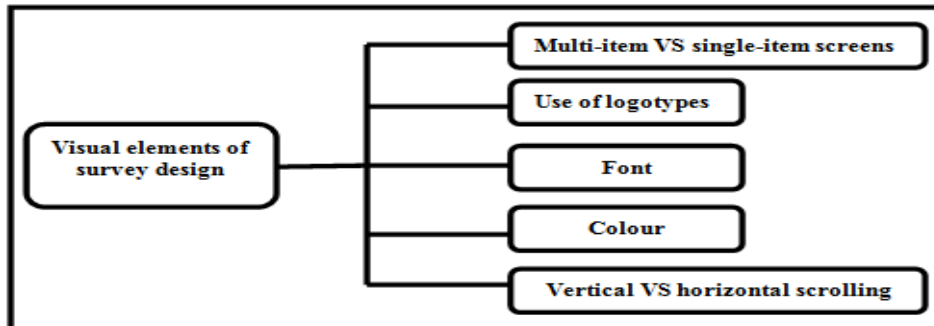
Location of sensitive questions: This study applied Knapp and Kirk's (2003) study concerning the location of sensitive questions. Sensitive questions, such as age and gender were placed in the final section (Section 3) in order to help respondents feel comfortable while completing the survey.

Layout of the questionnaire

Not only verbal information (e.g., wording), but also visual information (e.g., graphics) impacts on respondents' answers on web-based surveys (Couper, et al., 2001). In order to increase respondents' interest in providing all responses and maintain their participation until the end of the survey (Manfreda, et al., 2002), this

study takes into account several visual features of survey design as illustrated in Figure 3.4, and these features will be briefly explained in the following section.

Figure 3.4: Visual elements of survey design used for this study



Source: Developed for this research from LaGarce and Kuhn (1995); Couper et al. (2001); Manfreda et al. (2002); Crawford, McCabe, and Pope (2005)

Multiple-item screens versus single-item screens: This study used multiple-item screens. This is because when a set of questions appears together on the same screen with common response categories, this increases the correlation among the items, and minimises the time taken to complete the sets of items as compared to showing each question on one screen (Couper, et al., 2001).

Use of logotypes: The use of small logotypes makes the questionnaire more visually attractive, which then increases respondents' motivation for survey participation (Manfreda, et al., 2002). As there was a requirement to put the university's logo on the top of this survey, a small logo of the beautyheaven forum was presented in the participant information sheet instead before respondents accessed the questionnaire so as to help motivate respondents to participate in the survey.

Colour : The use of colour on surveys can lead to improved response rates (LaGarce & Kuhn, 1995). Blue is a good background shading colour for changing rows on web-based surveys as it improved readability of grid question rows and contrasts with black text (Crawford, et al., 2005). Hence, this colour was used in this survey. Furthermore, the colour of the beautyheaven forum is blue; thus, this colour would make respondents feel that this survey has some connection with the forum.

Font: A survey format that has less clutter as well as larger and bolder font is considered "user-friendly" and results in higher response rates (LaGarce & Kuhn,

1995). A 12-point bold font was used for all questions to ensure this online survey was easy to read (Crawford, et al., 2005).

Vertical versus horizontal scrolling: To avoid “horizontal scrolling where the content is off the left or right side of the visible browser window” (Crawford, et al., 2005, p. 52), the format of this online survey was designed vertically.

3.3.6 Step 6 – design web-based survey

The survey web page was designed by web support officers of Queensland University of Technology Faculty of Business Technical Services. They were given a copy of the survey, and created the web page from that survey. Then, the survey web page design was changed according to the feedback from the pretest stage.

3.3.7 Step 7 - pretest and revise

Questionnaire design should be pretested in order to help solve the problems of informational (Iarossi, 2006) and visual elements of an online survey. Thus, these elements were pretested by two academic researchers, and then were revised to make questions clear and motivate respondents to complete this survey.

3.3.8 Step 8 – place survey on web

The researchers gained permission to conduct this online survey from the website manager of the beautyheaven forum. This online survey was linked to a thread from the beautyheaven forum for a month and was available for respondents between 23 February and 23 March 2012. The next section will discuss sample justification and sample design for this study.

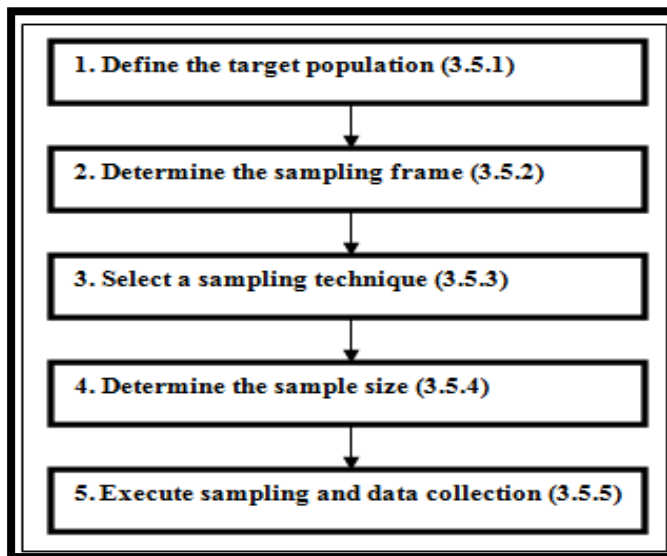
3.4 Justification of the sample

The selection of an appropriate sample is important for researchers to ensure that the research findings obtained from a sample can be generalized to the entire population (Marshall, 1996). This study attempts to investigate consumer motivations for eWOM exchanges in the context of an online beauty community; thus, members who participate in this community are considered appropriate samples which can be used to address the research question and draw conclusions about the whole population.

3.5 Sample design

Several decisions need to be made in order to select an appropriate sample for this study. The sample design decisions are illustrated in Figure 3.5 as a series of five sequential stages mostly adapted to marketing research (Malhotra, et al., 2006), and will be discussed in the following sections.

Figure 3.5: Five steps of sample design decisions



Source: Adapted for this research from Malhotra et al. (2006)

3.5.1 Step 1 – define the target population

The identification of the important characteristics of the population is a technique for defining the target population (Zikmund, et al., 2007). The important characteristics of the population in this study are individuals, who have registered as members of the beautyheaven forum. Thus, the population for this study is defined as “all members of the beautyheaven forum”.

3.5.2 Step 2 – determine the sampling frame

A sampling frame is a list of the members of the population from which the sample is actually drawn (McDaniel & Gates, 2005). In this study, a membership list of the beautyheaven forum was not available from the target population. Therefore, non-probability sampling was used as a less accurate but more practical method for this study (Zikmund, et al., 2007), discussed later in Section 3.5.3. The beautyheaven forum is considered a popular beauty forum in Australia where members discuss

topics related to beauty products and tips; hence, it was expected that the researchers would gain survey responses from the majority of female samples who live in Australia.

3.5.3 Step 3 - select a sampling technique

Participants' personal information was generally not provided in online communities (Wright, 2005); therefore, non-probability samples were most appropriate for this study when there was an absence of a random sample selection of respondents (Kaye & Johnson, 1999). This study employed a convenience sample where online community members were self-selected (Bhatnagar & Ghose, 2004; Johnson & Kaye, 2004; Miura & Yamashita, 2007).

3.5.4 Step 4 – determine the sample size

Sample size should be adequate since an undersized study will not be able to provide useful results (Lenth, 2001). In this study, the issue of undersized samples was addressed by offering voluntary respondents both monetary and non-monetary incentives so as to encourage beautyheaven forum members to complete the survey. Thus, it was hoped that the researchers would obtain samples of 80 or more to meet the minimum sample size needed to conduct data analysis.

3.5.5 Step 5 – execute sampling and collect data

Forum members were invited to access this online survey, which was linked to the thread on the beautyheaven forum. The data from respondents were automatically collected on the Queensland University of Technology server. The next section will evaluate the validity and reliability of this study.

3.6 Validity and reliability

The value of the very specific basis of positivist quantitative research is determined by solid validation of instruments that are employed to collect data upon which findings and interpretations are based (Boudreau, Gefen, & Straub, 2001). This study takes in account four major elements for assessing the measurement quality of this online survey; content validity, construct validity, criterion validity, and reliability

(Forza, 2002), which will be briefly discussed in the following sections and are summarised in Table 3.4.

Table 3.4: Validity and reliability assessment for this study

Type	What is measured	Methods
Content validity	Degree to which the content of the scale items adequately represents the entire domain of the construct being measured.	-Provide operational definitions of each construct. -Scale items were consistent with the literature review. -A review of scale items by experts.
Construct validity	Assess whether the selected items are associated with the aspects of the theoretical constructs measured and exclude the items considered irrelevant to the theoretical constructs.	- Factor analysis
Convergent	A link between items in the same construct.	-Use confirmatory factor analysis to test whether scale items meet convergent validity requirement.
Discriminant	Separate one theoretical construct from others in order to measure different constructs.	-Use confirmatory factor analysis to test whether eight constructs meet discriminant validity requirement.
Criterion validity	How well a measuring scale correlates with the criterion it is attempting to predict.	-Correlation analysis
Concurrent	A current level of criterion can be predicted by the measurement scale.	-Use correlation analysis to test whether the measures of member motivations correlate with the measures of eWOM exchanges at the same point in time.
Reliability	Degree to which a measurement generates consistent results and is free of unstable error.	-Pretest the survey. -Determine the values of coefficient alphas to see whether all constructs satisfy a minimum acceptable level of reliability.

Source: Synthesised from Nunnally (1978); Deng and Dart (1994); Dunn, Seaker, and Waller (1994); Cronbach and Meehl (1955); Boudreau et al. (2001); Forza (2002); Gatignon, Tushman, Smith, and Anderson (2002); Roberts, Varki, and Brodie (2003); Ping (2004); Bock, Zmud, Kim, and Lee (2005); Govindarajan and Kopalle (2006); Bergkvist and Rossiter (2007); Nov et al. (2010)

3.6.1 Content validity

Content validity is the degree to which the content of the scale items adequately represents the entire domain of the construct being measured (Cronbach & Meehl, 1955). Several approaches were used to improve the content validity of this survey. First, operational definitions of each construct were given, as seen in Table 3.5, in order to provide theoretical meanings of each construct (Ping, 2004), and ensure that scale items of each construct convey slightly different aspects of meaning (Forza, 2002). Next, to ensure that the content validation of this survey was implemented, the scale items were developed through the literature (Bock, et al., 2005). Finally,

discussions with two marketing academics who are experts in the area of online marketing were conducted to assess the content validity of the items (Bergkvist & Rossiter, 2007; Roberts, et al., 2003). The wording and content of the items were improved and some redundant items were deleted based on their comments.

Table 3.5: Constructs and operational definitions used in this online survey

H	Construct	Definition	Operational definition
H1a,b	Knowledge exchange	Consumers exchange useful information, skills, and experiences of product and brand usage (Hung & Li, 2007).	Knowledge exchange
H2a,b	Social bonding	Consumers create the strength of social relationships by interacting with others about products (Chan & Li, 2010).	Close social relationship building
H3	Enjoyment exchange	Consumers have flow or intrinsically enjoyable experiences by sharing fun product stories (Novak, Hoffman, & Duhachek, 2003).	Intrinsically enjoyable experiences
H1a	Self-development	Consumers desire to learn and improve their skills or expertise about product and brand usage (Oreg & Nov, 2008).	Learning and skill development
H1b	Reputation	Consumers desire to gain reputation and respect from others (Wasko & Faraj, 2005).	Reputation augment in the eyes of others
H2a	Problem solving support	Consumers desire to find someone to help them solve problems when they are in need (Mathwick, et al., 2008).	Interactive problem solving support
H2b	Dissonance reduction after purchase	Consumers desire to receive advice or support from others in order to decrease uncertainty after purchase (Hennig-Thurau, et al., 2004).	Advice or support for uncertainty reduction after purchase
H3	Relaxation	Consumers desire to have a break and be free from tension and responsibilities (Leung, 2001).	Relaxation

Source: Developed for this research

3.6.2 Construct validity

The focus in construct validity is to assess whether the selected items are associated with aspects of the theoretical constructs measured and to exclude items considered to be irrelevant to the theoretical constructs (Forza, 2002). Convergent validation (a link between items in the same construct) and discriminant validation (separating one theoretical construct from others in order to measure different constructs) are regarded as components of construct validity (Forza, 2002). “Since the construct cannot be directly assessed empirically, only indirect inference about construct validity can be made by empirical investigations” (Flynn, Sakakibara, Schroeder, Bates, & Flynn, 1990, p. 267). This study employed confirmatory factor analysis to test two types of construct validity as used by previous research (Byrd & Turner, 2000; Nov, et al., 2010; Straub, 1989). The results of the factor analysis indicated

whether items satisfied the convergent and discriminant validity requirement for each factor.

3.6.3 Criterion validity

Criterion validity examines how well a measuring scale correlates with the criterion it is attempting to predict (Nunnally, 1978). Concurrent validity was evaluated in this study since a current level of criterion could be predicted by the measurement scale (Dunn, et al., 1994). Different member motivations could predict the types of eWOM exchanges at the same point in time. This study employed a method for assessing criterion-related validity from the studies by Deng and Dart (1994), and Dunn et al. (1994) by examining the multiple correlation coefficient between the scores on five measures of member motivations and three measures of eWOM exchanges. Criterion-related validity of the five measures of member motivations would be presented if the scores on the measures are highly and positively correlated with the three measures of eWOM exchanges. In other words, the measures of member motivations should be able to predict the measures of eWOM exchanges.

3.6.4 Reliability

Reliability of an instrument is the degree to which a measurement generates consistent results and is free of unstable error (Boudreau, et al., 2001). Pretesting an online survey could help improve its reliability and remove duplicate items leading to an adequate number of items (Matsuno & Mentzer, 2000). This survey was pretested to ensure that questions were easy to understand and it comprised a number of different questions in order to measure the same phenomenon. Furthermore, following the approach used by prior studies (Gatignon, et al., 2002; Govindarajan & Kopalle, 2006; Nov, et al., 2010), this study assessed the reliability of this survey by determining the values of coefficient alphas for eight constructs (three eWOM exchanges and five member motivations) to see whether all constructs satisfied a minimum acceptable level of reliability, indicating that all measures were reliable.

3.7 Ethical considerations

This study complied with the QUT Code of Conduct for Research. A number of procedures of ethical clearance for this study were approved by the University Human Research Ethics Committee, such as potential risks and benefits associated with this study, participant recruitment, survey questions, and protecting confidentiality of responses. Therefore, this study was considered as low-risk research involving human participation.

3.8 Conclusion

This chapter discussed the research design used to address the research question. Positivism was justified as the most appropriate paradigm for this study. The appropriateness, advantages, disadvantages, and potential solutions of the use of a web-based survey for this study were determined. Further, eight steps of questionnaire design process were applied to assist in creating a respondent-friendly design. The samples were justified and five steps of sample design process were adopted to help generalise the results of the survey obtained from the sample to the whole population. In addition, the validity and reliability of this survey were assessed to improve data quality. Finally, every procedure for conducting this study was in accordance with ethical guidelines. The following chapter will present an analysis of the stored data.

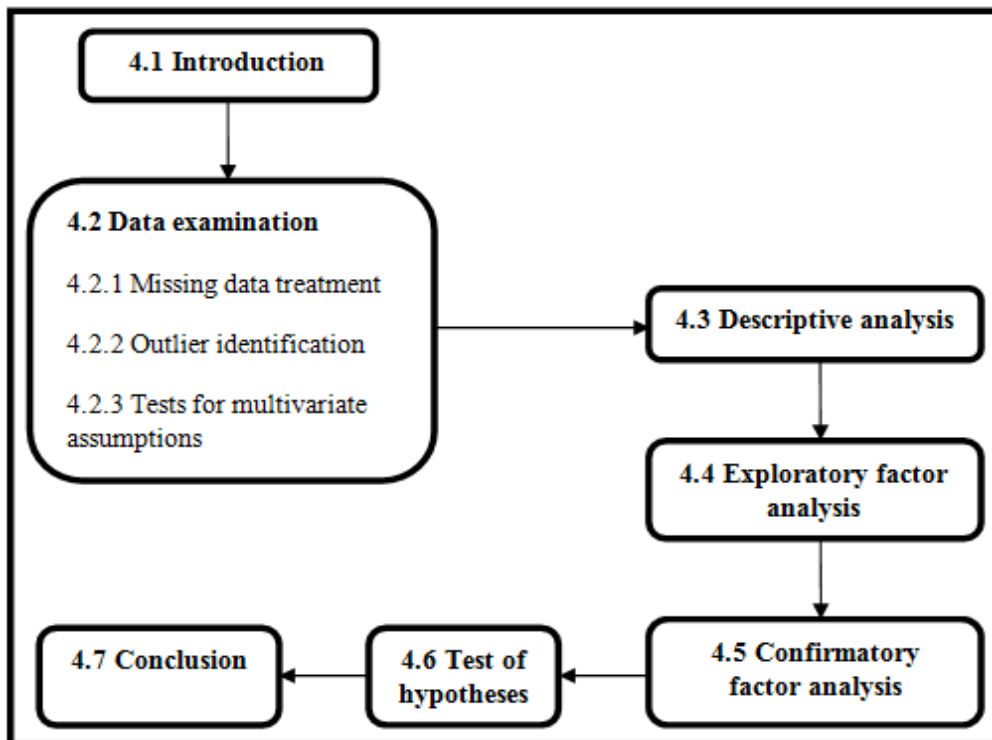
CHAPTER 4

Data analysis

4.1 Introduction

The aim of this chapter is to analyse the data and present statistical results of the online survey. This chapter comprises seven sections as shown in Figure 4.1. First, three elements of data examination (missing data assessment, outlier identification, and tests for multivariate assumptions) are detailed in Section 4.2 and descriptive statistics are presented in Section 4.3. Further, exploratory factor analysis and confirmatory factor analysis are discussed in Section 4.4 and 4.5. Additionally, five hypotheses were tested using linear regression analysis and are explored in Section 4.6. Finally, conclusions are given in Section 4.7. The next section will explain the data examination of this study.

Figure 4.1: Outline of Chapter 4



Source: Developed for this research

4.2 Data examination

After the survey responses had been entered electronically into the database, it was important to check and clean the data before starting to analyse and report the results. Based on the principle of the “garbage in, garbage out”, poor quality data will result in inaccurate results (Low, Lee, & Ling, 2001). Therefore, the initial step of data analysis process is data cleaning (Van Herk, Poortinga, & Verhallen, 2005). Three components of data examination contained missing data assessment, outlier identification, and tests for the assumptions underlying most multivariate techniques (Hair, Black, Babin, & Anderson, 2010), which will be discussed in the next section.

4.2.1 Missing data treatment

The survey responses were automatically transferred to Excel and SPSS; hence, there was no error in data entry. Three cases were removed as the respondents left the survey after completing its first page. Also, six cases were excluded since the respondents provided the exact same answer to all the questions in the survey, which indicated that the respondents did not pay attention to reading and responding to the questions, and thus the responses were possibly invalid. Further, one case did not respond to the question about the frequency of posting or replying on the forum. However, the missing data can be ignored as it was below 10 percent for an individual case (Hair, et al., 2010). At the end, there were 147 usable cases in the data set.

4.2.2 Outlier identification

Observations that are different from others in the set of data are considered outliers (Barnett & Lewis, 1994). In this study, two methods were used in identifying outliers: univariate and multivariate detection, and then a decision on retention or deletion of the outliers was made. First, univariate detection was used to examine all observations for an individual variable in the analysis (Hair, et al., 2010). The value of z scores, ranging from ± 4 , is considered acceptable for use with samples containing more than 80 respondents (Hair, et al., 2010). Three eWOM exchanges (dependent variables) and five member motivations (independent variables) were examined and it was found that four observations exceeded the maximum level of z scores on more than a single variable. The four observations were noted to see whether they appeared in the multivariate assessment.

Next, multivariate detection was employed to assess a combination of values of each observation across a set of variables (Hair, et al., 2010). The Mahalanobis D^2 measure with the level of significance less than or equal to 0.001 is regarded as an outlier. The findings suggested that there was no outlier appearing in the multivariate test. The outliers, which appeared in the earlier univariate analysis, were not seen in the univariate analysis; thus, no observations showed the characteristics of outliers that should be removed.

4.2.3 Tests for multivariate assumptions

Normality

The basic assumption for multivariate analysis is normality distribution (Malkovich & Afifi, 1973). Two components encompassing the shape of the distribution and the sample size can affect nonnormality distribution (Hair, et al., 2010). Regarding the shape of the distribution, skewness is used to describe the lack of balance in the distribution. If a distribution is shifted to the right or the left, it is skewed (Nelson, 2007). Whereas skewness refers to the unbalance of the distribution, kurtosis refers to the height of the distribution. A positive kurtosis denotes peakedness, while a negative kurtosis reflects flatness (Bachman, 2004).

As noted by Hair et al. (2010), in order to assess normal distribution, calculated z values of skewness and kurtosis should be ± 2.58 and ± 1.96 . According to the statistical tests of skewness and kurtosis, it was found that all calculated z values, except the kurtosis value of reputation variables, exceeded the specified critical values, indicating that the distribution was nonnormal and data transformation was required to remedy nonnormality. In this case, which is peaked with positive skew, it is advisable to transform the data by taking logarithm (Hair, et al., 2010). After the data were transformed by the logarithm, the normality of each variable was improved as the calculated z values of skewness and kurtosis were in the range of ± 2.58 and ± 1.96 . As for the sample size, the 147 observed cases were relatively large as the number of samples was greater than 50 (Hair, et al., 2010). Thus, the sample sizes of 147 could diminish the effects of nonnormality. In conclusion, the transformed variables and the sample size in this study met the assumptions of normality.

Linearity

Linearity represents the association between variables including multiple regression, logistic regression, factor analysis, and structural equation modeling, and is regarded as the fundamental assumption of multivariate analysis (Hair, et al., 2010). The purpose of this study is to investigate the relationships between dependent (eWOM exchanges) and independent (member motivations) variables. Therefore, the linear relationships between these variables existed in the data. The next section will detail the descriptive analysis of this study.

4.3 Descriptive analysis

4.3.1 Forum member profiles

This study used summary statistics to form respondent profiles. Gender, age, and geographical location of forum members are shown in Table 4.1. Of the 147 respondents surveyed on the beautyheaven forums, females (74.1 percent) outnumbered males (25.9 percent). Almost half of the respondents (46.9 percent) were aged 21 to 30 and 29.3 percent were 31 to 40 years old. Further, the majority of respondents were from Australia with 84.4 percent and over half of them (57 percent) lived in Queensland. Education, employment, and salary of forum members are illustrated in Table 4.2. As for educational attainment, the respondents were highly educated. Most respondents had Technical diploma/Bachelor's degree (47.6 percent) and Master's degree (30.6 percent). Of the 147 respondents surveyed, 40.8 percent were full time workers and 29.3 percent were students. In addition, over half of respondents (68.7 percent) had annual income ranging from below AUD\$15,000 to AUD\$24,999.

Table 4.1: Frequency table for gender, age, and geographical location

Forum members' profile	Frequency	Percentage
Gender		
Female	109	74.1
Male	38	25.9
Age		
≤ 20 years	21	14.3
21 to 30 years	69	46.9
31 to 40 years	43	29.3
41 to ≥56 years	14	9.6
Geographical location		
Australia	124	84.4
North America/Europe	14	9.5
Asia/Africa/Others	9	6.2
State		
Queensland	57	46
New South Wales	29	23.4
Victoria	21	16.9
Australian Capital Territory/Northern Territory/South Australia/Tasmania, Western Australia	17	13.6

Source: Analysis of survey data. N = 147

Table 4.2: Frequency table for education, employment, and salary

Forum members' profile	Frequency	Percentage
Educational level		
Primary school to high school to year 12	23	15.7
Technical diploma/Bachelor's degree	70	47.6
Master's degree	45	30.6
Doctorate/ Others	9	6.1
Employment		
Casual/Part-time	28	19.1
Full-time	60	40.8
Student	43	29.3
Home duties/Retired/Temporarily unemployed/ Unemployed never held job/Others	16	10.9
Income level		
Below \$15,000-24,999	101	68.7
\$25,000 - \$49,999	25	17
\$50,000 and above	21	14.3

Source: Analysis of survey data. N = 147

Frequency of posting or replying and membership duration of forum members are demonstrated in Table 4.3. The respondents posted or replied to threads on the beautyheaven forums less than 2 times per week with 44.5 percent and 2 to 4 times per week with 29.5 percent. As for membership duration, the respondents were either members for less than 6 months (63.2 percent) or longer term (36.7 percent). An exploratory factor analysis will be discussed in the following section so as to identify latent factors among several variables.

Table 4.3: Frequency table for frequency of posting or replying and membership duration

Forum members' profile	Frequency	Percentage
Frequency of posting or replying		
Less than 2 times per week	65	44.5
2 to 4 times per week	43	29.5
5 to 10 times per week	21	14.4
More than 10 times per week	17	11.6
Membership duration		
Less than 6 months	93	63.2
7 to 11 months	18	12.2
1 to 2 years	26	17.7
3 to over 4 years	10	6.8

Source: Analysis of survey data. N = 147

4.4 Exploratory factor analysis

An exploratory factor analysis (EFA) was conducted using SPSS 17.0 to decrease the complexity of the data collection by identifying groups of correlated variables (Bryman & Cramer, 2009). Principle component analysis (PCA) was performed to decrease data with a large number of interrelated variables into smaller factors (Becton & Graetz, 2001) and to evaluate the degree of the independence of the identified factors (Hennig-Thurau & Walsh, 2003). Further, this study followed an oblimin rotation method used by the studies of Ferguson and Perse (2000) as well as Chakraborty, Srivastava, and Marshall (2007), as there may be correlations between factors.

4.4.1 Undimensionality of measurement model

In the analysis of this study, frequency of posting or replying, membership duration, geographical location, state, gender, age, educational level, employment, and income level were control variables. Three dependent variables (eWOM exchanges) were knowledge, social bonds, and enjoyment. Five independent variables (member motivations) were self-development, reputation, problem solving support, dissonance reduction after purchase, and relaxation. Principle component analysis was applied to the two sets of dependent and independent variables. These variables were analysed individually in order to assess the undimensionality as a set of measured variables should load on only one factor (Hair, et al., 2010).

4.4.2 Measurement model for the dimension of eWOM exchanges

The first dimension of eWOM exchanges: knowledge (k1 to k5), social bonds (sb1 to sb5), and enjoyment (e1 to e5) was tested by using principle component analysis with an oblimin rotation. Three clear components emerged and the Scree Plot also supported a three components solution. The loadings of the items in the three components were as expected. The factor score loadings were greater than 0.50, inferring that the three components were good measures of eWOM exchanges. The results of the factor loadings are shown in Table 4.4.

Tables 4.4: Principle component analysis for eWOM exchanges-Pattern Matrix for 3 factors

	Factor		
	Knowledge	Social bonds	Enjoyment
k3- exchange tips and how-tos based on my own experiences.	0.83		
k2- exchange my skills about tips and how-tos.	0.80		
k1- exchange useful beauty information.	0.79		
k5- discuss the best alternatives available in a product category.	0.71		
k4- exchange successful and failure stories of my product experiences.	0.61		
sb2- know more friends within the forum.		0.89	
sb3- feel as if some members are my close friends.		0.87	
sb4- maintain close social relationships with some members.		0.87	
sb1- have close social relationships with other members.		0.83	
sb5- feel that my participation is important to other members.		0.61	
e2- is interesting.			0.87
e1- is enjoyable.			0.85
e5- lets me have a good time.			0.84
e4- is entertaining.			0.82
e3- is exciting.			0.76

Rotation Method: Obimin with Kaiser Normalisation. a. Rotation converged in 5 iterations.

Source: Analysis of survey data. N = 147

The Kaiser-Meyer-Olkin (KMO) measuring the sampling adequacy was 0.86, which was over the recommended minimum level of 0.50 (Hair, et al., 2010), and was therefore satisfied. In addition, the total variance explained by the three factors was 67.57 percent, which was above the required minimum level of 60 percent (Hair, et al., 2010). Further, the range of the Cronbach (1951)'s alpha was 0.82 to 0.90, which was over the recommended minimum level of 0.70, thus indicating the reliability of variables. All of these results indicated the robustness of measures.

4.4.3 Measurement model for the dimension of member motivations

The second measurement model, containing five member motivations (self-development, reputation, problem solving support, dissonance reduction after purchase, and relaxation) was undertaken using the principle component analysis to identify underlying factors. According to the Scree Plot, six factors were extracted, which were self-development, reputation, problem solving support, dissonance reduction after purchase, relaxation, and unknown. These factors accounted for the total variance at 71.01 percent; however, it is recommended that each factor should have at least three loaded variables (Hair, et al., 2010; Kim & Mueller, 1978). In this case, the unknown factor containing only one variable (I am not the one who has a certain problem with the product I bought) was poorly defined and eliminated (Tabachnick & Fidell, 2001). Further, most variables loaded highly onto five factors; however, the variable (be seen as trustworthy) exhibited low scores on all factors as it was less than 0.50. Thus this variable was removed.

Once the two items were omitted, the principle component analysis was performed again, and this measurement model was found to have better fit if it was made into a five factor model grouping self-development (sd1 to sd5), reputation (rp1 to rp4), problem solving support (ps1-ps5), dissonance reduction after purchase (dr1, and dr3 to dr5), and relaxation (rl1 to rl5). All variables were above 0.50, and thus can be said to be significant. The five factors and loadings can be seen in Table 4.5.

The KMO Measure of Sampling was satisfied with a score of 0.85 as it was greater than 0.50. Further, these five factors accounted for 69.43 percent of total variance. The amount of variance was above 60 percent, and thus was considered an acceptable level. The Cronbach (1951)'s alpha of this model ranging from 0.85 to 0.90 was greater than 0.70, indicating the high degree of the internal reliability of variables within each construct. The results of this analysis supported good measures of five member motivation components. A confirmatory factor analysis will be discussed in the subsequent section in order to ensure the model fit of the data and good construct validity of the instrument.

Tables 4.5: Principle component analysis for member motivations-Pattern Matrix for 5 factors

	Factor				
	Self-development	Reputation	Problem solving	Dissonance reduction	Relaxation
sd4-learn about the latest beauty trends.	0.87				
sd3- learn new tips and how-tos.	0.79				
sd5-find out about which products and topics are popular.	0.65				
sd2-improve my expertise.	0.55				
sd1- develop my skills and abilities.	0.51				
rp2- be considered as a beauty guru.		0.94			
rp3- build my reputation as a beauty guru.		0.92			
rp1- be recognised for my expertise.		0.74			
rp4- gain respect from other members.		0.53			
ps5- I could find other members to help solve my problems when I need it.			0.85		
ps3-other members would give advice to help solve my problems.			0.84		
ps2-there are several members I trust to help solve my problems.			0.77		
ps4-there are members I can turn to for advice about the right solutions for me.			0.74		
ps1-other members would help me if I had a similar problem.			0.73		
dr4-I have done the right thing in buying a particular product.				0.85	
dr3- I really need the product I bought.				0.82	
dr1- I have made the right product choice.				0.75	
dr5- buying a certain product is a wise decision.				0.73	
rl2- relaxes me.					0.83
rl4- relieves boredom.					0.82
rl5- allows me to get away from pressures and responsibilities.					0.81
rl1- is a pleasant break from my day.					0.81
rl3- helps me feel less tense.					0.73

Rotation Method: Obimin with Kaiser Normalisation. a. Rotation converged in 5 iterations.
Source: Analysis of survey data. N = 147

4.5 Confirmatory factor analysis

Confirmatory factor analysis (CFA) is used to obtain the final estimates of the measurement models of factor structure, each of which proposes how well measured variables are compatible with their latent factors (Bagozzi, 1980; Bollen, 1989). The initial design of plausible factor patterns from prior theoretical or empirical studies is required in order to assess how well the theories in the models of factor structure fit the sample data (Doll, Xia, & Torkzadeh, 1994). It is necessary to conduct CFA as the test of factor structures is more rigorous and systematic than the test within the framework of EFA (Bollen, 1989).

This study used AMOS 16.0 to describe the measurement models and test the model fit against the sample data. First, based on theoretical or empirical studies, two models of factor structure were proposed (eWOM exchanges and member motivations). The model fit was assessed using several goodness-of-fit indexes. Second, CFA was conducted to evaluate the reliability, convergent validity, and discriminant validity of the factors and items in the chosen model, which will be discussed in the following section.

4.5.1 Model fit in eWOM exchanges

The goodness of fit statistics of the eWOM exchange model is shown in Table 4.6. CMIN/DF is the Chi-square minimum divided by the degrees of freedom and was considered a good fit for the selected model at the maximum recommended level of 3.00 (Hair et al., 2010). Thus, the CMIN/DF at 1.71 was satisfied. Comparative fit index (CFI) was used to measure the amount of variance and covariance of the sample data in the model (Tabachnick & Fidell, 2001). Also, higher CFI values indicated better fit of the model (Hair et al., 2010). The CFI at 0.95 was acceptable as it was above the minimum recommended level of 0.90 (Hair et al., 2010).

Table 4.6: Goodness of fit statistics for the eWOM exchange model

Goodness of fit statistics	Value
Chi-square	148.50
DF	87
CMIN/DF	1.71
CFI	0.95
RMSEA	0.07
SRMR	0.06

Source: Analysis of survey data. N = 147

Root Mean Square Error of Approximation (RMSEA) is used to measure how well the model fits a population (Hair et al., 2010). The acceptable value of RMSEA is in the range between 0.03 and 0.08 (Hair et al., 2010). The RMSEA was at 0.07 and could present a good fit for the overall population, not just the sample. Standardised root mean residual (SRMR) is used to compare the overall difference between the observed and predicted correlations (Kline, 2005) and to indicate fit across models, with a maximum acceptable level of 0.10 (Hair et al., 2010). The SRMR value of 0.06 was satisfied as it was lower than the recommended level of 0.10. The results of

CFA suggested that the eWOM exchange model was satisfactory and considered a good fit with the sample data.

4.5.2 Model fit in member motivations

The member motivation model was undertaken using CFA and it didn't show a good fit since CFI at 0.88 was below the minimum recommended level of 0.90. The factor loading in the self-development construct (sd4: learn about the latest beauty trends) exhibited a relatively low score compared to other items in the construct (0.54). The result might have been affected by asking a similar question with different words, thus this item was deleted. The CFA was computed again and the model was found to have a good fit. The goodness of fit statistics of the member motivation model is illustrated in Table 4.7. The CMIN/DF at 1.83 was below 3.00, and therefore was satisfied. The CFI at 0.91 exceeded 0.90, and thus was satisfied. The RMSEA at 0.08 was also acceptable as it was in the range between 0.03 and 0.08. The SRMR value of 0.09 was less than 0.10, and therefore was also acceptable. The findings of CFA supported the overall level of goodness of fit of the member motivation model with the sample data.

Table 4.7: Goodness of fit statistics for the member motivation model

Goodness of fit statistics	Value
Chi-square	364.90
DF	199
CMIN/DF	1.83
CFI	0.91
RMSEA	0.08
SRMR	0.09

Source: Analysis of survey data. N = 147

4.5.3 Construct validity of the eWOM exchange model

Construct validity refers to the ability of a measurement tool to measure the constructs being investigated (Peter, 1981). Convergent validity (link between items in the same construct) and discriminant validity (separating one theoretical construct from others in order to measure different constructs) are two components used to assess construct validity (Forza, 2002).

As well as the standardised factor loadings in the confirmatory factor analysis, the observation of the values of construct reliability (CR) and average variance extracted

(AVE) in the measurement model were used as indicators for convergent validity. The rule of thumb of a good reliability estimate is 0.70 or above, indicating the internal consistency reliability (Hair, et al., 2010). Further, AVE values that are 0.50 or higher suggest a good indicator of convergence for each construct in a measurement model (Hair, et al., 2010). As noted by Fornell and Larcker (1981), to substantiate the evidence of discriminant validity, the values of average variance extracted (AVE) for a pair of factors should be higher than the values of shared variance of the two factors (i.e., the squared inter-factor correlation).

The standardised factor loadings were above 0.50 for all items in the three constructs of the eWOM exchange model and the calculated CR for each construct was higher than 0.70. The results of calculated AVE are also used to identify the convergent validity of each construct. In this case, the latent construct of knowledge exchange had an AVE slightly lower than 0.50, indicating that “on average, more error remains in the items than variance explained by the latent factor structure imposed on the measure” (Hair, et al., 2010, p. 709). However, psychological factors of the respondents may cause measurement error (Bollen & Long, 1993; Byrne, 2005; Joreskog, 1993; Schumacker & Lomax, 2004) or the items may be measuring unknown constructs that are not hypothesised in the research (Kline, 2005; Maruyama, 1998; Tanaka, 1993). Therefore, other indicators of construct validity should be considered to prove acceptable convergence of the construct. As the values of standardised factor loadings met the minimum requirement at 0.50, this suggested that all measures possessed adequate convergent validity (Hair, et al., 2010). The values of standardised factor loadings, CR, and AVE of the eWOM exchange model are shown in Table 4.8.

The values of correlations, correlation squared matrix, and AVE are shown in Table 4.9 to assess the discriminant validity of the three constructs of the eWOM exchange model. The AVE values for any two constructs of this model were greater than the squared inter-factor correlation. For instance, the correlation between knowledge and enjoyment constructs was 0.31 and its squared value was 0.09. The AVE of knowledge (0.49) and enjoyment (0.64) constructs was greater than the squared correlation at 0.09. Thus, this test provided good evidence of discriminant validity of the eWOM exchange model.

Table 4.8: Standardised factor loadings, CR, and AVE of the eWOM exchange model

Observed variables	Construct		
	Knowledge	Social bonds	Enjoyment
k1- exchange useful beauty information.	0.74		
k3- exchange tips and how-tos based on my own experiences.	0.73		
k4- exchange successful and failure stories of my product experiences.	0.70		
k5- discuss the best alternatives available in a product category.	0.67		
k2- exchange my skills about tips and how-tos.	0.65		
sb3- feel as if some members are my close friends.		0.88	
sb2- know more friends within the forum.		0.85	
sb4- maintain close social relationships with some members.		0.85	
sb1- have close social relationships with other members.		0.77	
sb5- feel that my participation is important to other members.		0.56	
e1- is enjoyable.			0.86
e5- lets me have a good time.			0.81
e2- is interesting.			0.80
e3- is exciting.			0.77
e4- is entertaining.			0.76
Construct Reliability	0.96	0.96	0.98
Average Variance Extracted	0.49	0.62	0.64

Source: Analysis of survey data. N = 147

Table 4.9: Correlations, correlation squared matrix, and AVE of the eWOM exchange model

	Knowledge	Social bonds	Enjoyment
Knowledge	1.00	0.04	0.09
Social bonds	0.20**	1.00	0.08
Enjoyment	0.31***	0.29***	1.00
Average Variance Extracted	0.49	0.62	0.64

Significance level: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: Values below the diagonal are correlation estimates among constructs, diagonal elements are construct variances, and values above the diagonal are squared correlations.

Source: Analysis of survey data. N = 147

4.5.4 Construct validity of the member motivation model

The second measurement model of member motivations was also undertaken using CFA to assess the construct validity of the instrument. All standardised factor loadings were greater than 0.50 in the five constructs of the member motivation model and the calculated CR for each construct had values greater than 0.70, and therefore were satisfied. The calculated AVE values of all latent constructs were also

acceptable. The values of standardised factor loadings, CR, and AVE of the member motivation model are shown in Table 4.10.

The correlations, correlation squared matrix, and AVE are demonstrated in Table 4.11 to support the discriminant validity of the five constructs of the member motivation model. In this case, the shared variances for each pair of constructs were lower than the AVE. For example, self-development was correlated with relaxation at 0.49 and the squared value was 0.24. The squared correlation at 0.24 was lower than the AVE of self-development (0.57) and relaxation (0.62). Therefore, this test supported adequate discriminant validity of the member motivation model.

Table 4.10: Standardised factor loadings, CR, and AVE of the member motivation model

Observed variables	Construct				
	Self-development	Reputation	Problem solving	Dissonance reduction	Relaxation
sd1- develop my skills and abilities.	0.90				
sd2- improve my expertise.	0.89				
sd3- learn new tips and how-tos.	0.61				
sd5- find out about which products and topics are popular.	0.57				
rp2- be considered as a beauty guru.		0.94			
rp3- build my reputation as a beauty guru.		0.93			
rp1- be recognised for my expertise.		0.67			
rp4- gain respect from other members.		0.55			
ps3- other members would give advice to help solve my problems.			0.78		
ps2- there are several members I trust to help solve my problems.			0.77		
ps5- I could find other members to help solve my problems when I need it.			0.75		
ps1- other members would help me if I had a similar problem.			0.71		
ps4- there are members I can turn to for advice about the right solutions for me.			0.71		
dr4- I have done the right thing in buying a particular product.				0.82	
dr3- I really need the product I bought.				0.80	
dr5- buying a certain product is a wise decision.				0.75	
dr1- I have made the right product choice.				0.71	
rl2- relaxes me.					0.92
rl3- helps me feel less tense.					0.87
rl1- is a pleasant break from my day.					0.75
rl5- allows me to get away from pressures and responsibilities.					0.70
rl4- relieves boredom.					0.67
Construct Reliability	0.96	0.96	0.97	0.96	0.97
Average Variance Extracted	0.57	0.63	0.55	0.59	0.62

Source: Analysis of survey data. N = 147

Table 4.11: Correlations, correlation squared matrix, and AVE of the member motivation model

	Self-development	Reputation	Problem solving	Dissonance reduction	Relaxation
Self-development	1.00	0.01	0.05	0.25	0.24
Reputation	0.10 ^a	1.00	0.02	0.08	0.05
Problem solving	0.23**	0.15*	1.00	0.05	0.07
Dissonance reduction	0.50***	0.29***	0.22***	1.00	0.12
Relaxation	0.49***	0.23**	0.26***	0.34***	1.00
Average Variance Extracted	0.57	0.63	0.55	0.59	0.62

Significance level: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

^a indicates that there is no significance level for covariance between constructs

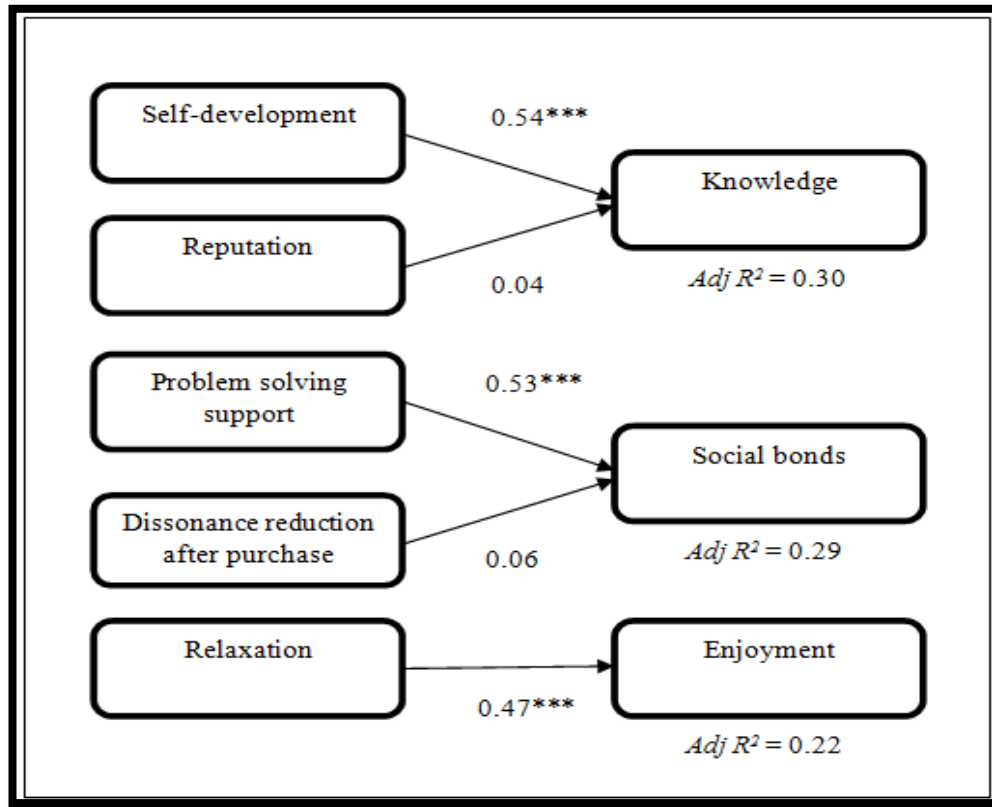
Note: Values below the diagonal are correlation estimates among constructs, diagonal elements are construct variances, and values above the diagonal are squared correlations.

Source: Analysis of survey data. N = 147

4.6 Test of hypotheses

In order to address the research question “What are the driving factors for members to exchange eWOM in an online community”, multiple regression analysis was utilised to analyse the relationships between dependent variables (eWOM exchanges) and independent variables (member motivations). Pearson’s correlation analyses were initially run to examine the interrelationship among these variables, and it was found that the correlation coefficient values were from $r = 0.17$ to $r = 0.55$. These values were in the low to moderate level (Cohen & Holliday, 1982), revealing that the multicollinearity did not pose a serious threat to the analyses. The results of the test of hypotheses are summarised in Figure 4.2.

Figure 4.2: The regression model in this study



Source: Developed for this research

4.6.1 Testing Hypothesis 1

The null and alternate hypotheses for H1 are stated as follows:

H0: Self-development and gaining reputation from others have no positive relationship with knowledge exchange in an online community of interest.

H1a: There is a positive relationship between self-development and knowledge exchange in an online community of interest.

H1b: There is a positive relationship between gaining reputation from others and knowledge exchange in an online community of interest.

Multiple regression analysis was conducted to examine whether self-development and reputation have effects on knowledge exchange. The analysis indicated that self-development and reputation accounted for 30 percent of variance ($Adj R^2 = 0.30$) in knowledge exchange. The $F(2,144) = 31.52$ was significant at the 0.000 level, representing that hypothesis 1 was substantiated. That is, self-development and reputation had significant effects on knowledge exchange. Therefore, the null hypothesis can be partially rejected. Specifically, self-development had a significant

impact on knowledge exchange, $\beta = 0.54$, $t = 7.70$, $p < 0.001$. However, gaining reputation from others was not significantly related to knowledge, $\beta = 0.04$, $t = 0.59$, *ns*. The summary results of H₁ are illustrated in Figure 4.2.

4.6.2 Testing Hypothesis 2

The null and alternate hypotheses for H₂ are stated as follows:

H0: Problem solving support and dissonance reduction after purchase are not positively associated with social bonding in an online community of interest.

H2a: There is a positive relationship between problem solving support and social bonding in an online community of interest.

H2b: There is a positive relationship between dissonance reduction after purchase and social bonding in an online community of interest.

Multiple regression analysis was used to investigate whether problem solving support and dissonance reduction after purchase have an influence on social bonding. The analysis showed that problem solving support and dissonance reduction after purchase explained 29 percent of variance ($Adj R^2 = 0.29$) in social bonding. The $F(2,144) = 30.83$ was significant at the 0.000 level, representing that hypothesis 2 was substantiated. That is, problem solving support and dissonance reduction after purchase were significantly related to social bonding. Thus, the null hypothesis can be partially rejected. Specifically, problem solving support was predictive of social bonding, $\beta = 0.53$, $t = 7.18$, $p < 0.001$. However, there was no relationship between dissonance reduction after purchase and social bonding, $\beta = 0.06$, $t = 0.86$, *ns*. The summary results of H₂ are shown in Figure 4.2.

4.6.3 Testing Hypothesis 3

The null and alternate hypotheses for H₃ are stated as follows:

H0: Relaxation is not positively related to enjoyment exchange in an online community of interest.

H3: There is a positive relationship between relaxation and enjoyment exchange in an online community of interest.

Hypothesis 3 was tested by applying simple regression analysis to see whether relaxation has an impact on enjoyment exchange. The analysis demonstrated that relaxation accounted for 22 percent of variance ($Adj R^2 = 0.22$) in enjoyment

exchange. The $F(1,145) = 41.77$ was significant at the 0.000 level, representing that hypothesis 3 was substantiated. That is, relaxation had a significant effect on enjoyment exchange. Accordingly, the null hypothesis can be rejected. Specifically, relaxation significantly related to enjoyment exchange, $\beta = 0.47$, $t = 6.46$, $p < 0.001$. The summary results of H_3 are demonstrated in Figure 4.2. In addition, the results of all hypotheses were summarised as can be seen in Table 4.12.

Table 4.12: Summary of the results of hypotheses

Dependent variables	Hypothesis number	Hypotheses	Results
Knowledge exchange	H1a	There is a positive relationship between self-development and knowledge exchange in an online community of interest.	Supported
	H1b	There is a positive relationship between gaining reputation from others and knowledge exchange in an online community of interest.	Rejected
Social bonding	H2a	There is a positive relationship between problem solving support and social bonding in an online community of interest.	Supported
	H2b	There is a positive relationship between dissonance reduction after purchase and social bonding in an online community of interest.	Rejected
Enjoyment exchange	H3	There is a positive relationship between relaxation and enjoyment exchange in an online community of interest.	Supported

Source: Developed for this research

4.7 Conclusion

The statistical results of the online survey were reported in this chapter. The data were primarily cleaned to ensure the accuracy of the results. First, six cases with missing data were removed and one case with missing data less than 10 percent was ignored, resulting in 147 usable cases in the data set. Further, as a result of univariate and multivariate detection, no outlying observations should be eliminated. Finally, in order to meet the normality assumptions, the nonnormality distribution of the data was remedied by using logarithm. After transforming the data, the values of skewness and kurtosis were within the acceptable level.

According to the descriptive analysis of the data, the majority of forum members were females who lived in Australia. In addition, most respondents were full time workers and students with a high level of education and relatively low income. Further, most of them posted or replied on threads less than two times a week and were members less than six months.

The results of EFA supported good measures of two measurement models (eWOM exchanges and member motivations). Additionally, the findings of CFA suggested that the chosen models fit well with the sample data and all measures provided good evidence of reliability and validity of the data. Based on the test of hypotheses, the research problem was confirmed and disconfirmed by using linear regressions. Three hypotheses were supported while the other two hypotheses were rejected. In chapter 5, the results will be interpreted. The contributions and limitations of this study will be discussed along with implications for future research.

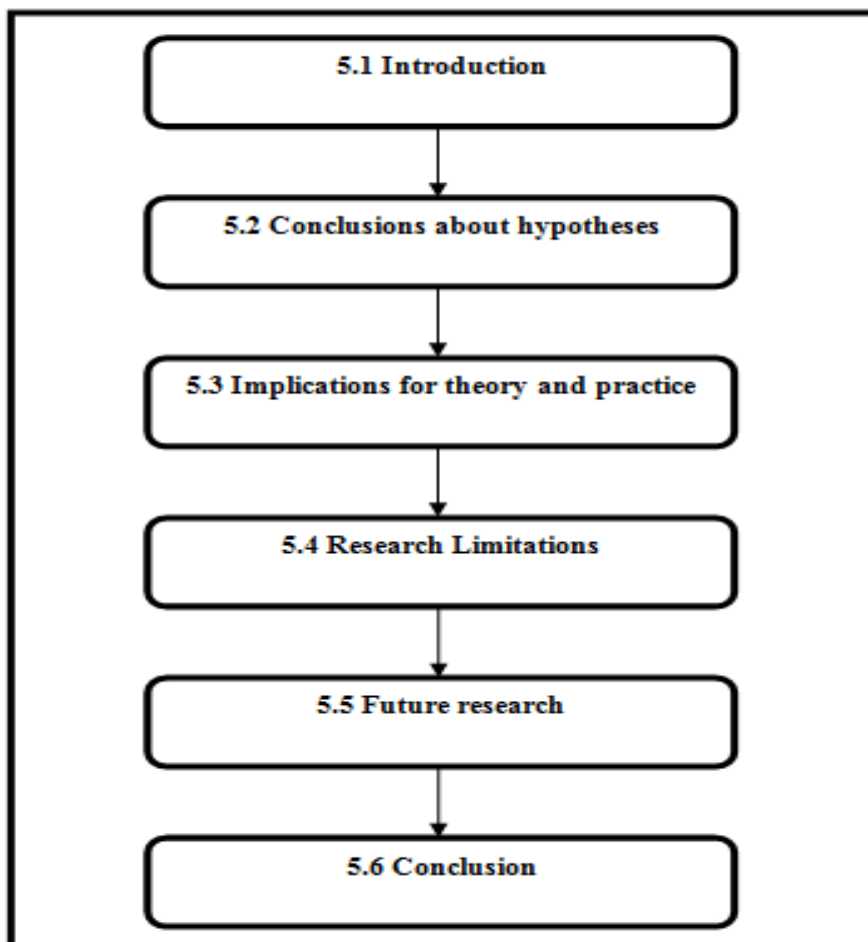
CHAPTER 5

Discussions and conclusions

5.1 Introduction

This chapter will provide the discussions and conclusions of the research findings and is divided into 6 sections as shown in Figure 5.1. Conclusions about the hypotheses are presented in Section 5.2. Section 5.3 explains both theoretical and practical contributions of this study. Limitations of this study are described in Section 5.4, while recommendations for future research are detailed in Section 5.5. Finally, Section 5.6 presents the conclusion of this study.

Figure 5.1: Outline of Chapter 5



Source: Developed for this research

5.2 Conclusion about hypotheses

This study aimed to address the research question “What are the driving factors for members to exchange eWOM in an online community?”. The conceptual framework for this study was developed in Section 2.5 based on a review of the relevant literature and research on motivational behaviour. An online survey was employed and five hypotheses were tested in this study so as to have a better understanding of the patterns of member motivations for eWOM exchanges in an online community of interest.

The research findings will be discussed based on the hypotheses listed in Table 5.1. Out of five hypotheses with regard to member motivations for eWOM exchanges, three hypotheses were supported (H1a, H2a, H3); therefore, self-development was a predictor of knowledge exchange, problem solving support was a predictor of social bonding, and relaxation was a predictor of enjoyment exchange. On the other hand, two hypotheses were rejected (H1b, H2b); thus, reputation did not predict knowledge exchange, and dissonance reduction after purchase did not predict social bonding.

Table 5.1: List of research hypotheses

Hypothesis number	Research Hypothesis	Results
H1a	There is a positive relationship between self-development and knowledge exchange in an online community of interest.	√
H1b	There is a positive relationship between gaining reputation from others and knowledge exchange in an online community of interest.	X
H2a	There is a positive relationship between problem solving support and social bonding in an online community of interest.	√
H2b	There is a positive relationship between dissonance reduction after purchase and social bonding in an online community of interest.	X
H3	There is a positive relationship between relaxation and enjoyment exchange in an online community of interest.	√

Source: Developed for this research

This study identifies the recent studies that fully and partially support each hypothesis. The recent literature and research on motivational behaviour was incorporated in this chapter as can be seen in Table 5.2. This study will provide an explanation for similar and different findings and highlight how this study will extend the current literature. Conclusions about each of the research hypotheses will be discussed in the following sections.

Table 5.2: Summary of hypotheses found in this study

No	Research Hypothesis	Fully supported by recent research	Partially supported by recent research	Reference
H1a	There is a positive relationship between self-development and knowledge exchange in an online community of interest.		√	Wasko and Faraj (2000, 2005); Bonaccorsi and Rossi (2003); Lakhani and von Hippel (2003); von Hippel and von Krogh (2003); Hall and Graham (2004); Zhao and Deek (2004); Oreg and Nov (2008)
H1b	There is a positive relationship between gaining reputation from others and knowledge exchange in an online community of interest.	√	√	Hung and Li (2007) Constant et al. (1996); Wasko and Faraj (2000, 2005); Ardichvili et al. (2003); Hall and Graham (2004); Chiu et al. (2006); Roberts et al. (2006); Oreg and Nov (2008); Xu, Jones, and Shao (2009); Chiu, Wang, Shih, and Fan (2011); Jeon, Kim, and Koh (2011); Vuori and Okkonen (2012)
H2a	There is a positive relationship between problem solving support and social bonding in an online community of interest.		√	Schindler and Bickart (2005); Williams (2006); Ellison et al. (2007, 2011); Mathwick et al. (2008)
H2b	There is a positive relationship between dissonance reduction after purchase and social bonding in an online community of interest.		√	Mitchell and Boustani (1994); Schindler and Bickart (2005); Hsu and Lin (2006)
H3	There is a positive relationship between relaxation and enjoyment exchange in an online community of interest.		√	Leung (2001); Dholakia et al. (2004); Sherry (2004); Shoham (2004); Cheung and Lee (2009); Chan and Li (2010)

Source: Developed for this research

5.2.1 Hypothesis 1a: There is a positive relationship between self-development and knowledge exchange in an online community of interest

Previous research focused on the effects of member motivations on knowledge exchange in the context of online communities of practice (Hall & Graham, 2004; Oreg & Nov, 2008; Wasko & Faraj, 2000, 2005). However, Wasko and Faraj (2005) suggested that member motivations for knowledge exchange, such as self-development, in online communities of practice might be applied to online communities of interest. Hence, this study attempted to fill the research gap by empirically testing the relationship between self-development and knowledge exchange in an online community of interest.

Hypothesis 1a was supported. This study provides empirical support for the proposed relationship. The important findings are that the driving factor for members to exchange knowledge in an online community of interest is to learn, and develop skills and abilities. Thus, this study provides some additional indication beyond previous evidence linking self-development motivation with knowledge exchange in the context of online communities of practice (Bonaccorsi & Rossi, 2003; Lakhani & von Hippel, 2003; Oreg & Nov, 2008; von Hippel & von Krogh, 2003; Zhao & Deek, 2004). In this case, beautyheaven members cultivate social capital by exchanging useful beauty information, such as tips and how-tos, and success and failure stories of their product experiences since they anticipate gaining reward from the pool of knowledge capital in terms of the development of their beauty skills and abilities.

Prior research has already established that self-development motivation is prevalent in online communities of practice (Bonaccorsi & Rossi, 2003; Lakhani & von Hippel, 2003; Zhao & Deek, 2004). The contribution of this study is that the findings highlight the importance of the role of self-development motivation in an online community of interest where members can gain personal value by improving their skills and abilities. The self-development incentive exists in an online community of interest despite the different attributes between the two types of online communities in terms of member characteristics and tasks' objectives. First, members in online communities of interest are groups of people interested in discussing particular topics of consumption interest (e.g., beauty products and tips) (Hung, et al., 2011) whereas members in online

communities of practice are groups of people who are experts or active practitioners of skill-based activities (e.g., collaborative software development) (Oreg & Nov, 2008). Second, the aim of online communities of interest is to enable members to exchange opinions and experiences with products (Chan & Li, 2010) while the purpose of online communities of practice is to allow members to share insights, best practices, and solutions to problems with products (Wasko, Teigland, & Faraj, 2009).

Although members in online communities of interest are not necessarily experts or practitioners who can share best practices or insights into the topics, members have a desire to share product knowledge with others to improve their abilities. The existence of this motive may result from the development of trust in an online community of interest since members believe that they have sufficient skills or competencies to exchange knowledge in a particular topic (Ridings, Gefen, & Arinze, 2002). Further, they expect that others will exchange useful and credible information relating to their direct experiences with products (Ridings, et al., 2002). Thus, this study provides an extension to the current understanding that an online community of interest is considered to be an appropriate environment for members to exchange knowledge for self-development. An interesting area of further research should compare differences in the relevance of this motivation across two distinct online communities as this motivation may be more dominant in certain types of online communities.

5.2.2 Hypothesis 1b: There is a positive relationship between gaining reputation from others and knowledge exchange in an online community of interest

Prior research in online communities of practice found that members exchanged knowledge as they were motivated to gain reputation from others (Chiu, et al., 2006; Constant, et al., 1996; Hall & Graham, 2004; Vuori & Okkonen, 2012; Wasko & Faraj, 2000). One previous study in an online community of interest using an ethnographic analysis technique also supported the same findings (Hung & Li, 2007). However, there has been a lack of research using a survey method to confirm this motivation in this type of online community. Hence, this study offers a first attempt to quantitatively test the relationship between gaining reputation from others and knowledge exchange.

Hypothesis 1b was rejected. Contrary to the prediction, there was no significant relationship between gaining reputation from others and knowledge exchange in an online community of interest. This study highlights two important factors which may differentiate the findings of this study from those of previous research.

First, the possible explanation of why members did not seek to gain reputation from knowledge exchange in this study context may be due to the nature of knowledge exchange between members in online communities of practice and interest. Compared to online communities of interest, members in online communities of practice, such as software development, need to devote their time, effort, and skills to inherently motivating tasks, which require complicated and creative software design, and require a system development process that is difficult to observe and hence not easily monitored (Kirsch, 1996). Therefore, members anticipate the repayment for the software development tasks in the form of enhanced reputation (Ardichvili, et al., 2003; Chiu, et al., 2011; Jeon, et al., 2011; Oreg & Nov, 2008; Roberts, et al., 2006; Xu, et al., 2009). Further, members have a chance to find better careers from showing their programming abilities and competencies to current and potential employers (Roberts, et al., 2006), and receive offers for consultancy work from other members (Wasko & Faraj, 2000). However, with regard to online communities of interest, these observations may not be applicable. In this case, the exchange of useful information and experiences with beauty products, such as latest product updates, effectiveness, and potential side effects (Beautyheaven, 2011) may not be considered as a very difficult task, and therefore beautyheaven members may not be motivated to gain reputation as beauty gurus from others, or obtain career opportunities from knowledge exchange on the forum.

Second, based on the findings of one prior study in the context of an online community of interest, Hung and Li (2007) indicated that gaining reputation from others encouraged knowledge exchange in an online beauty community (onlinelady forum) in China. However, this study showed that the incentive of gaining reputation from others had no impact on knowledge exchange in an online beauty community (beautyheaven forum) in Australia. The possible explanation of why this motivation was not found in this study may be due to the different psychological factors of each consumer group with different

cultures (Ardichvili, Maurer, Li, Wentling, & Stuedemann, 2006). Individuals in a group-oriented country, such as China, exchange knowledge since they expect to gain face or reputation from others in a community (Kanzler, 2010; Li, Ardichvili, Maurer, Wentling, & Stuedemann, 2007). On the other hand, individuals in an individual-oriented country, such as Australia (Kashima, Halloran, Yuki, & Kashima, 2004), place value on a sense of personal achievement (Kanzler, 2010), and thus they share knowledge with others since they perceive that they can perform well in their particular skills (Geissler & Edison, 2005). This indicates that each consumer group may have different motivations for knowledge exchange based on cultural differences, and therefore future research should take this aspect into consideration.

5.2.3 Hypothesis 2a: There is a positive relationship between problem solving support and social bonding in an online community of interest

Prior research found that member motivations for knowledge exchange in online communities of interest were instrumental need, gaining reputation from others (Hung & Li, 2007), and perceived identity verification (Ma & Agarwal, 2007). However, little is known about what drives members to establish social bonds in the community. Thus, this study represents the first attempt to investigate the relationship between problem solving support and social bonding in an online community of interest.

Hypothesis 2a was supported. The results from this study provide strong support for the hypothesised relationship, indicating that a significant predictor of social bonding is the expectation of gaining problem solving support. Consistent with social capital theory, reciprocity is important for sustaining supportive relationships (Putnam, 1995; Shumaker & Brownell, 1984), and close personal relationships are the development of bonding social capital, which in turn provides a social support benefit for individuals in social networks (Putnam, 2000). Prior studies showed that social bonds facilitated online community members in solving problems (Ellison, et al., 2007, 2011; Schindler & Bickart, 2005; Williams, 2006). Further, Wang and Fesenmaier (2004b) found that the expectation of receiving help from others when members are in need motivated them to contribute to the community. In this case, members in the beautyheaven forum evaluate the social situation with regard to what they have to give as well as relate this to what

they will be repaid in the future. Beautyheaven members make friends by socially interacting with others about beauty matters, such as their favourite beauty products, since they expect that when they have some problems, such as acne breakouts, others will help them. Members consider gaining problem solving support as an incentive that is worth the investment of bonding social capital.

The findings from this study contribute to the current literature by highlighting the importance of the expectation of gaining problem solving support that drives members to create social bonds, which was not identified in previous research in an online community of interest. This motivation exists owing to two possible important factors: the suitability of an online community environment and the opportunities for members to gain different types of social support from like-minded people having similar topics of interest. First, an online community of interest facilitates individuals to meet new people and make friends with others who share similar interests anywhere and at anytime, in order to gain social support from others (Wellman, 2005). In addition to social support provided by family, individuals have a desire to gain social support from others in communities since the development of close social relationships from non-family members influences reciprocating behaviours, and thus community members expect that they will receive social support from others when they are in need (Liebler & Sandefur, 2002).

Second, friendship building around products in an online community of interest provides members opportunities to receive two important types of social support (instrumental and empathic support) from like-minded consumers mutually discussing their common interests, such as beauty products and tips. Members can receive instrumental support from others who are knowledgeable in particular areas of interest to help solve problems, such as potential side effects of particular beauty products (Hung, et al., 2011). Further, members can gain empathic support from others who have had similar experiences (Bickart & Schindler, 2001), such as a hair pulling habit, and have a desire to help find the right solutions to the problems (Pitta & Fowler, 2005b). These two possible explanations indicate that the expectation of gaining problem solving support

plays a significant role in influencing social bonding related to products which can help generate eWOM communication in an online community of interest.

5.2.4 Hypothesis 2b: There is a positive relationship between dissonance reduction after purchase and social bonding in an online community of interest

Prior research found that the advice of friends and family can help consumers reduce post-purchase dissonance in face-to-face settings (Hsu & Lin, 2006; Mitchell & Boustani, 1994). Further, Schindler and Bickart (2005) indicated that members used online communities of interest in the form of discussion forums to confirm the wisdom of their product choices. Members build friendship in an online community of interest (Chan & Li, 2010); however, little is known about whether the desire for support after purchase motivates members to establish social bonds in this community. Thus, this study attempts to quantitatively test the relationship between dissonance reduction after purchase and social bonding.

Hypothesis 2b was rejected. The result did not confirm the hypothesised relationship, indicating that the motivation for dissonance reduction after purchase did not associate with social bonding. There are two main possible reasons why this study provides no evidence of this motivation in an online community of interest in the form of a discussion forum: member characteristics of the discussion forums (active and nonactive members) and the role of reading motive for post-purchase dissonance reduction played in online communities in the form of online consumer reviews. First, although prior research found that one motivation for members to use discussion forums is to receive support from others in order to confirm a previously-made purchase decision (Schindler & Bickart, 2005), one possible explanation for the findings may be due to member characteristics of the discussion forums. Schindler and Bickart (2005, p. 43) used an interview method and indicated that out of nineteen participants, “two or three of our participants were active members of online communities, while several others lurked or participated occasionally”. Members with weak or no social bonds seem more salient than those with strong social bonds. This motivation is more likely to relate to nonactive members -who read and then use the product information from other members to gain

support after purchase- than active members, who establish close social relationships with others on the discussion forums.

Second, prior research supported that dissonance reduction after purchase was related to reading motive in online communities in the form of online consumer reviews (Bailey, 2005; Hennig-Thurau & Walsh, 2003). Although friends and family provide social support with regard to the products consumers have already purchased in offline environments (Hsu & Lin, 2006; Mitchell & Boustani, 1994), consumers use online consumer reviews as another important source of post-purchase information (Dellarocas & Narayan, 2006). Consumers can find out and read the feedback and overall rating of a particular product from others in online consumer reviews so as to reduce their post-purchase dissonance (Hennig-Thurau & Walsh, 2003); thus, there may be no need for members to create social bonds on a discussion forum for support after purchase. Further, in this case, the beautyheaven online community website provides members the links to different types of online communities including a forum and an online consumer review. Hence, members may have different motivations for using each type of online community on this website. An online consumer review may be a source of product information that members can read to confirm a purchase already made, whereas a discussion forum may be a venue for members to build intimacy so as to gain problem solving support when they are in need. Other motivations for members to build social bonds in an online community of interest should be an interesting question to investigate in future research.

5.2.5 Hypothesis 3: There is a positive relationship between relaxation and enjoyment exchange in an online community of interest

Previous research in an online community of interest has highlighted that consumer behavior related to individual and social interactive enjoyment should be further investigated (Hung & Li, 2007). Therefore, this study aims to seek an explanation of why members exchange enjoyment in the community. This study offers a first attempt to quantitatively test the relationship between relaxation motivation and enjoyment exchange.

Hypothesis 3 was supported. As expected, relaxation motivation was associated with enjoyment exchange in an online community of interest. Prior research provided some evidence that members were gratified to use online communities for relaxation (Cheung & Lee, 2009; Dholakia, et al., 2004; Leung, 2001), and members had enjoyable experiences in the communities (Chan & Li, 2010; Shoham, 2004). The statistically significant findings of this study support a synthesis of the theories of uses and gratifications with flow suggested by prior research on conventional media use (Sherry, 2004).

The findings from this study make a contribution to the literature by highlighting the importance of the influence of relaxation motive on the exchange of flow experience in the context of an online community of interest. This motivation exists since members have a desire to co-create hedonic value in terms of relaxation from having enjoyable social interactions with others in an online community of interest. Group norms influence members' mutual desire to participate in the community for relaxation (Cheung & Lee, 2009). Members in online communities of interest are regarded as pleasure seekers, who value the experiential aspects of consumption in activities that provide them with enjoyment, entertainment, amusement, and fun (Wang & Fesenmaier, 2004b). An online community of interest, such as an online beauty community, provides members opportunities to meet others with mutual interests of beauty products and tips as well as take part in fun group activities (Chan & Li, 2010), such as sharing their fun stories and photos about their hair and makeup looks for parties, such as a Christmas party. When members expect that they will receive benefits in terms of relaxing, this can influence their continued participation in enjoyable consumption activities (Nambisan & Baron, 2007). Hence, the relaxation motivation for enjoyment exchange can play a vital role in influencing members to spread eWOM communication in the community. This research constitutes a first step in highlighting the incentive for enjoyment exchange in an online community of interest, and there is a need for future research to extend the range of motivations under investigation.

5.3 Implications for theory and practice

This study attempts to provide contributions to both marketing researchers and practitioners. The gaps that this study proposes to fill in the existing research literature, and the opportunities for this study to make contributions to theory as well as practice were summarized as can be seen in Table 5.3.

5.3.1 Implications for theory

This study yields three important contributions to the research literature by providing an improved understanding of a conceptual foundation for member motivations for three types of eWOM exchanges in an online community of interest. These motivations include sharing social bonds and enjoyment in addition to knowledge about products, which have not been incorporated in the prior literature.

The first contribution is the identification of the impact of self-development motivation on product knowledge exchange in an online community of interest. Social capital theory, which has been used to provide an explanation of member motivation for knowledge exchange in an online community of practice, was applied to an online community of interest. Several researchers have found that members invest knowledge capital in online communities of practice so as to gain a personal benefit in terms of self-development (Hall & Graham, 2004; Wasko & Faraj, 2000, 2005). This study supports the theory and extends the findings of prior research and as it was found that this motivation exists in an online community of interest. This study provides researchers a basic understanding that members in two different types of online communities have a similar goal concerning self-development for knowledge capital investment, in spite of dissimilar attributes between the two communities in terms of member characteristics and tasks' objectives. Further, this study assists researchers to understand other motivations for knowledge exchange identified by previous research in online communities of practice, such as altruistic (Wasko & Faraj, 2000, 2005) and self-efficacy motivations (Wasko & Faraj, 2000) since these motivations may be applicable to the context of online communities of interest.

Table 5.3: A summary of research gap identification as well as contributions to theory and practice

Research gap identification	Contributions to theory	Contributions to practice
<p><u>Member motivations for eWOM exchanges</u> Prior research has focused on member motivations for knowledge exchange in online communities of interest (Hung & Li, 2007; Ma & Agarwal, 2007). This study attempts to <i>seek member motivations for exchanging eWOM regarding social bonds and enjoyment in addition to knowledge about products in an online community of interest.</i></p>	<p><i>Create a better understanding of what motivates members to share social bonds and enjoyment in addition to knowledge related to products in an online community of interest, which was not incorporated in the prior literature from the perspective of exchange. A new conceptual framework of this study could potentially be applied to other online community contexts, such as online social networking sites (e.g., Facebook) since these communities enable members to participate in three types of resource exchange activities.</i></p>	<p><i>Offer an important guideline for a marketing manager to develop different marketing strategies based on member motivations for exchanging three types of eWOM communication in an online community of interest, such as an online beauty community.</i></p>
<p><u>Self-development motivation for knowledge exchange</u> Member motivations for developing knowledge capital in an online community of practice might be applied to an online community of interest (Wasko & Faraj, 2005). Self-development motive influenced knowledge exchange in online communities of practice [e.g., Hall and Graham (2004), Wasko and Faraj (2000, 2005)]; however, <i>little research has examined this motivation in an online community of interest.</i></p>	<p><i>Identify that members in two different types of online communities share similar goals for knowledge exchange, despite dissimilar attributes between the two communities (e.g., member characteristics and tasks' objectives). Assist researchers to understand other motivations for knowledge exchange identified by previous research in online communities of practice, such as self-efficacy and altruistic motivations (Wasko & Faraj, 2000) since such motivations may be applicable to online communities of interest.</i></p>	<p><i>Develop a skill improvement activity, such as creating a “makeup tutorial” forum in order for members to improve their skills from exchanging knowledge about beauty products with others.</i></p>
<p><u>Problem solving support motivation for social bonding</u> Research found that perceived identity verification (Ma & Agarwal, 2007), instrumental, and reputation (Hung & Li, 2007) motives drove members to exchange knowledge in online communities of interest. However, <i>little is known about member motivation for social bonding in an online community of interest.</i></p>	<p><i>Offer a new perspective on member motivation for social bonding. Indicate that in addition to social support from friend and family in offline contexts, consumers are motivated to build social bonds with online community members since they are an important source of problem solving support (instrumental and empathic support) in regard to products.</i></p>	<p><i>Build a more social-oriented community atmosphere, such as creating a “beauty diary” forum where members can chat about everything related to beauty. Members tend to build social bonds since they serve as a reserve of problem solving support in the future.</i></p>
<p><u>Relaxation motivation for enjoyment exchange</u> Previous research has highlighted that consumer behavior related to individual and social interactive enjoyment in an online community of interest should be investigated (Hung & Li, 2007). This study attempts to <i>seek an explanation of why members exchange enjoyment in an online community of interest.</i></p>	<p><i>Extend the body of knowledge regarding member motivation for enjoyment exchange. Provide a basis for researchers to understand that members in an online community of interest value experiential aspects of enjoyable consumption activities, and thus based on group norms, members have a mutual desire for relaxation from enjoyment exchange.</i></p>	<p><i>Develop an enjoyable activity, such as creating a “fun beauty experience” forum where members can share their funny photos or stories related to beauty product use. Once members perceive that such activity enables them to feel relaxed, this would motivate them to exchange enjoyable experiences with products in the community.</i></p>

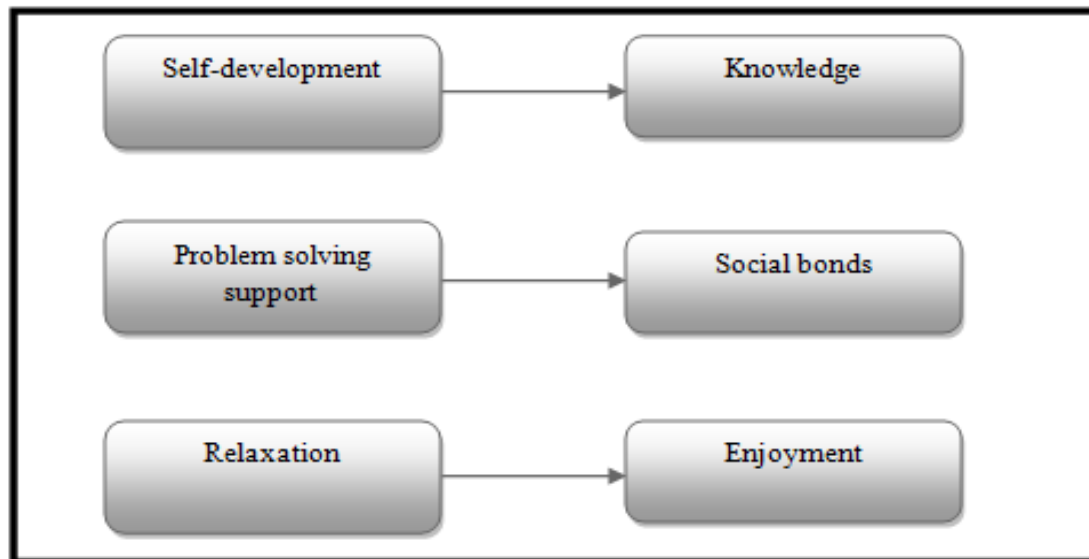
Source: Developed for this research

Second, this study is theoretically significant in that it identifies the influence of members' expectations of gaining problem solving support on social bonding in an online community of interest. Drawing on social capital theory, bonding social capital accumulated in an online community serves as a reserve of problem solving support which could be tapped at some point in the future (Mathwick, et al., 2008). This study confirms the theory since the empirical findings indicated that the anticipation of receiving help in return, when members are in need, motivated them to build close social relationships with others by talking about products. In addition to social support provided by family in offline environments (Liebler & Sandefur, 2002), individuals are motivated to form intimacy with like-minded consumers who discuss their mutual interests in online communities since they are an important source of problem solving support (Wellman, 2005) in terms of instrumental (Hung, et al., 2011) and empathic support (Bickart & Schindler, 2001). The evidence in this study provides a basis for researchers to comprehend a new perspective on member motivation for social bonding in an online community of interest, which was not indicated in the prior literature.

The last contribution is the identification of the influence of relaxation motivation on enjoyment exchange in an online community of interest. This study is the first attempt to empirically test a synthesis of uses and gratifications with flow theories previously used in traditional media (Sherry, 2004). Hence, the statistically significant findings of this study provide a key contribution to the synthesis of theories in online media in that members exchange enjoyable experiences with products since they are motivated to use an online community of interest to fulfill their gratifications regarding relaxation. As pointed out by Holbrook and Hirschman (1982), if marketers focus totally on creating information-oriented activities and ignore recreational activities for consumers, marketers may overlook the equally important experiential aspect of consumption. Members in an online community of interest are considered pleasure seekers who value enjoyable consumption activities (Wang & Fesenmaier, 2004b), and thus based on group norms, members have a mutual desire to receive hedonic value in terms of relaxing from participating in the community (Cheung & Lee, 2009). Currently the literature does not identify member motivation for enjoyment exchange; therefore, the evidence in this study assists in extending the literature beyond the current understanding.

In conclusion, this study provides implications for the literature in that three types of eWOM exchanges (knowledge, social bonds, and enjoyment relevant to products) were incorporated in a conceptual framework in order to provide insights into distinctive member motivations in an online community of interest. The findings underscore the importance of the framework to the growing body of knowledge. The new conceptual framework of this study, which is shown in Figure 5.2, generates a theoretical basis for future research as it can potentially be applied in other online community contexts, such as online social networking sites (e.g., Facebook). Scholars and marketers have paid attention to the social networking sites since they provide new platforms for online users to exchange three types of resource exchange activities: sharing information, photos, and video; building close relationships in order to possess a sense of belonging (Gangadharbatla, 2008); and participating in enjoyable activities (Zhou, Li, & Liu, 2010).

Figure 5.2: A new conceptual framework of member motivations for eWOM exchanges in an online community



Source: Developed for this research

5.3.2 Implications for practice

Some beneficial contributions are provided to marketing practitioners. This study offers an important guideline for the development of an online community of interest, such as an online beauty community. The findings from this study provide an online community manager a better understanding of distinctive member motivations, which differ based on the types of eWOM exchanges. An online community manager can develop different marketing strategies to further encourage eWOM exchanges. For instance, due to the influence of self-development incentive on knowledge exchange, an online beauty community manager might create a “makeup tutorial” forum where members can post their tutorial threads and add their photos or videos about the beauty products that they use to create their looks, such as natural or romantic looks, and how to wear makeup with different looks and techniques. Hence, members can learn and improve their makeup skills from exchanging knowledge about beauty products with others.

Further, problem solving support identified in this study as a motive for social bonding can help an online community manager develop a more social-oriented community atmosphere. For example, an online beauty community manager might facilitate the strength of members’ social bonds by creating the link of a main forum (e.g., “beauty diary”) that has sub-forums (e.g., travel or holidays) in it. Members can chat about everything related to beauty that happens in their daily lives, such as favourite beauty products for travel or holiday beauty gifts for friends and family. Members who think building friendships with others by talking about beauty products would provide problem solving support in the future tend to establish social bonds with others.

Finally, an online community manager can develop strategies that appeal to the relaxation incentive that drives enjoyment exchange. For instance, an online beauty community manager might create a “fun beauty experience” forum and post starter thread topics in order to stimulate members to share their funny photos or stories related to beauty product use, such as fun wig experiences. Also, contests might be held to promote socially interactive enjoyable activities. For example, members might be invited to upload photos of their makeup looks and products, and tell others which fun songs inspire their look in order to win prizes. Once members perceive that such

activities enable them to feel relaxed, this would motivate them to exchange enjoyable experiences with products in the community.

In conclusion, the result of this study indicates that it is crucial to have a comprehensive understanding of member motivations for exchanging knowledge, social bonds, and enjoyment related to products in an online community of interest. These exchanges serve as important sources of eWOM that can influence members' purchase intentions. The proper development of strategies based on each motive can attract and encourage members to exchange different types of eWOM in the community. Thus, an online beauty community manager, for example, has potential opportunities to increase traffic for the community and bring in revenue in terms of sponsorship and online advertisements from business partners, such as beauty product companies or websites that can potentially expand their marketing exposure and increase their product sales in the community. Such opportunities are able to sustain the viability and achievement of the community.

5.4 Research limitations

There are some limitations associated with this study. First, this study was conducted in an online beauty community in Australia. Thus, future research should replicate this study in other types of online communities of interest, such as those concerned with food and drink or movies, and in other nations to see whether the motivations for eWOM exchanges identified in this study can be applied to different contexts. As suggested by Ma and Agarwal (2007), it is necessary to test the conceptual framework of the research in other types of online community of interest in order to provide more robust and generalisable research.

The next limitation is that this study examines member motivations in an online beauty community where the majority of respondents were female. Previous research suggests that gender differences have an impact on online information search behavior and communication patterns (Kim, Lehto, & Morrison, 2007; Okazaki & Hirose, 2009). For instance, females are more likely than males to accept other people's useful product and service information and have interpersonal relationships with others (Bae & Lee, 2011). Consequently, the generalisability of the results may be limited due to gender-related

behavior (Chan & Li, 2010), and further research should examine whether similar patterns of motivational factors would emerge in online communities of interest that tend to be used by males, such as motorsport or football online communities.

Finally, an online survey method has its limitations due to self-selection and self-reporting issues from a convenience sample (Bhatnagar & Ghose, 2004). Self-selected respondents might not be motivated to fill in the survey without interviewers' assistance. Online community members might click the survey link, look at its first page, and decide to participate while others may choose not to. Thus this could lead to relatively low response rates. Although monetary incentives were offered, they might be too small to attract members to take part in the survey. Further, respondents might have a bias in their self-reported answers to questions about reputation motivation for knowledge exchange owing to the influence of socially desirable responses (Bhatnagar & Ghose, 2004). Hence, the survey results might not be representative of the population.

5.5 Future research

There are some opportunities to extend this current study. First, this study does not place a specific focus on member characteristics in terms of their demographic information including age, gender, education level, and income. An interesting extension of this study would be to investigate the relationships between age, gender, education level, and income and member motivations for eWOM exchanges in an online community of interest. Members with different demographic characteristics have different reasons or needs to participate in online community activities, and thus it is necessary for online community providers to understand these differences as demographics can impact on the choices that online community providers make in developing marketing strategies (Wang & Fesenmaier, 2004a).

In addition, there is conflicting evidence regarding reputation motivation for knowledge exchange in an online community of interest. Previous study found that reputation incentive could encourage members to exchange knowledge in an online beauty community (Hung & Li, 2007). Although, this motivation was investigated in the same

type of online community, this study did not provide support for this motivation. As a result, this conflicting evidence calls for further research.

5.6 Conclusion

This chapter discussed the findings of this study in order to provide an answer to the research question “What are the driving factors for members to exchange eWOM in an online community?” The research question was addressed by applying theories on consumer motivation and employing an online survey instrument. This study has implications for both researchers and practitioners. The limitations of this study are identified as comprising the issues of the generalisability of the findings as well as self-selection and self-reporting from the use of an online survey. Future research opportunities are given in this chapter.

There have been only a few prior studies in online communities of interest giving an explanation of members’ motivational factors for knowledge exchange (Hung & Li, 2007; Ma & Agarwal, 2007). This study has, therefore, provided an important foundation upon which to create a better understanding of member motivations for exchanging social bonds and enjoyment in addition to knowledge pertaining to products in the community.

The statistically significant results of this study confirm the theories on consumer motivation. This study uncovers three distinctive motivations that are antecedents for exchanging knowledge, social bonds, and enjoyment about products in an online community of interest: self-development, problem solving support, and relaxation, respectively. The new conceptual framework presented in this study provides an initial understanding of the influence of member motivations on eWOM exchanges for future research on consumer motivation and behaviour in online communities. This study offers future research an opportunity to extend a wider range of member motivations for exchanging three types of eWOM communication in order to build further insights into this research area. Further, an online community provider can improve their marketing strategies based on member motivations for eWOM exchange activities so as to assist in increasing online traffic and revenue, which can bring success to the community.

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Appendices


Appendix 3.1: Online survey screenshot



Queensland University of Technology
 Brisbane Australia

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QUT BUSINESS

Customer motivations for exchanging electronic word-of-mouth in online communities



Section 1: This section helps the researcher understand your activities related to beauty products and topics within this forum.
 Please read each statement and click on the option which indicates how much the statement applies to you.

1. I like to come to this forum to:

	Strongly agree	Agree	Slightly agree	Neutral or no opinion	Slightly disagree	Disagree	Strongly disagree
exchange useful beauty information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
exchange my skills about tips and how-tos.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
exchange tips and how-tos based on my own experiences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
exchange success and failure stories of my product experiences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
discuss the best alternatives available in a product category.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. I find having social interactions about beauty matters (e.g., my favourite products) makes me:

	Strongly agree	Agree	Slightly agree	Neutral or no opinion	Slightly disagree	Disagree	Strongly disagree
have close social relationships with other members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
know more friends within the forum.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
feel as if some members are my close friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
maintain close social relationships with some members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
feel that my participation is important to other members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. I find sharing fun experiences with products (e.g., my first memory of make-up):

	Strongly agree	Agree	Slightly agree	Neutral or no opinion	Slightly disagree	Disagree	Strongly disagree
is enjoyable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is interesting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is exciting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is entertaining.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
lets me have a good time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

BACK

NEXT

CRCOS No. 002133

Appendix 3.2: Online survey

Section 1: This section helps the researcher understand your activities related to beauty products and topics within this forum.

Please read each statement and click on a number 1,2,3,4,5,6,7 which indicates how much the statement applies to you.

The rating scale is as follows:

1 = Strongly agree

2 = Agree

3 = Slightly agree

4 = Neutral or no opinion

5 = Slightly disagree

6 = Disagree

7 = Strongly disagree

1. I like to come to this forum to:

	1	2	3	4	5	6	7
exchange useful beauty information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
exchange my skills about tips and how-tos.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
exchange tips and how-tos based on my own experiences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
exchange success and failure stories of my product experiences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
discuss the best alternatives available in a product category.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. I find having social interactions about beauty matters (e.g., my favourite products) makes me:

	1	2	3	4	5	6	7
have close social relationships with other members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
know more friends within the forum.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
feel as if some members are my close friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
maintain close social relationships with some members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
feel that my participation is important to other members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. I find sharing fun experiences with products (e.g., my first memory of make-up):

	1	2	3	4	5	6	7
is enjoyable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is interesting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is exciting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is entertaining.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
lets me have a good time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 2: This section helps the researcher understand why you participate in the forum.

Please read each statement and click on a number 1,2,3,4,5,6,7 which indicates how much the statement applies to you.

The rating scale is as follows:

- | | |
|---------------------------|-----------------------|
| 1 = Strongly agree | 5 = Slightly disagree |
| 2 = Agree | 6 = Disagree |
| 3 = Slightly agree | 7 = Strongly disagree |
| 4 = Neutral or no opinion | |

4. I exchange knowledge about beauty topics because it helps me:

	1	2	3	4	5	6	7
develop my skills and abilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
improve my expertise.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
learn new tips and how-tos.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
learn about the latest beauty trends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
find out about which products and topics are popular.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. I exchange knowledge about beauty topics because it helps me:

	1	2	3	4	5	6	7
be recognised for my expertise.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
be considered as a beauty guru.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
build my reputation as a beauty guru.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
gain respect from other members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
be seen as trustworthy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. My social relationship with other members can help me solve my problems (e.g., acne) because:

	1	2	3	4	5	6	7
other members would help me if I had a similar problem.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
there are several members I trust to help solve my problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
other members would give advice to help solve my problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
there are members I can turn to for advice about the right solutions for me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I could find other members to help solve my problems when I need it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. I would ask advice from members whom I interact with about whether:

	1	2	3	4	5	6	7
I have made the right product choice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am not the only one who has a certain problem with the product I bought.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I really need the product I bought.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have done the right thing in buying a particular product.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
buying a certain product is a wise decision.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. I share fun experiences with products because it:

	1	2	3	4	5	6	7
is a pleasant break from my day.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
relaxes me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
helps me feel less tense.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
relieves boredom.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
allows me to get away from pressures and responsibilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 3: Your profile

9. How often do you post or reply to beauty forum threads per week?

- ☐ Less than 2 times per week ☐ 8 to 10 times per week
☐ 2 to 4 times per week ☐ More than 10 times per week
☐ 5 to 7 times per week

10. How long have you been a member of the beauty forum?

- ☐ Less than 3 months ☐ 1 to 2 years
☐ 3 to 6 months ☐ 3 to 4 years
☐ 7 to 11 months ☐ Over 4 years

11. In which geographical location do you reside?

- ☐ Australia ☐ South America Europe
☐ Asia ☐ Antartica
☐ North America ☐ Africa
☐ Europe ☐ Other.....

12. If you live in Australia, what state do you live in?

- | | |
|--|---|
| <input type="radio"/> Australian Capital Territory | <input type="radio"/> South Australia |
| <input type="radio"/> New South Wales | <input type="radio"/> Tasmania |
| <input type="radio"/> Northern Territory | <input type="radio"/> Victoria |
| <input type="radio"/> Queensland | <input type="radio"/> Western Australia |

13. What is your gender?

- | | |
|------------------------------|----------------------------|
| <input type="radio"/> Female | <input type="radio"/> Male |
|------------------------------|----------------------------|

14. What is your age range?

- | | |
|---------------------------------------|---------------------------------------|
| <input type="radio"/> ≤ 20 years | <input type="radio"/> 41 to 55 years |
| <input type="radio"/> 21 to 30 years | <input type="radio"/> ≥ 56 years |
| <input type="radio"/> 31 to 40 years | |

15. What is the highest level of education you have attained?

- | | |
|---|---|
| <input type="radio"/> Primary school | <input type="radio"/> Bachelor's degree |
| <input type="radio"/> High school to year 10 | <input type="radio"/> Master's degree |
| <input type="radio"/> High school to year 12 | <input type="radio"/> Doctoral degree |
| <input type="radio"/> Technical diploma/certificate | <input type="radio"/> Other..... |

16. Which of the following best describes your employment?

- | | |
|---|----------------------------------|
| <input type="radio"/> Full time paid work | <input type="radio"/> Unemployed |
| <input type="radio"/> Part time paid work | <input type="radio"/> No work |
| <input type="radio"/> Casual paid work | <input type="radio"/> Retired |
| <input type="radio"/> Home duties | <input type="radio"/> Other..... |
| <input type="radio"/> Student | |

17. Which of the following best suggests your annual income level (AUD\$)?

- | | |
|---|---|
| <input type="radio"/> Below \$15,000 | <input type="radio"/> \$40,000 – \$49,999 |
| <input type="radio"/> \$15,001 - \$24,999 | <input type="radio"/> \$50,000 and above |
| <input type="radio"/> \$25,000 - \$39,999 | |

Thank you for sharing your information with us and completing the survey. Your contribution to this research is greatly appreciated.

If you do not wish to enter prize draws, please click on the submit button at the end of the survey.

If you wish to enter prize draws, please see below for the terms and conditions.

1. The prize draws are open to respondents who are resident in Australia and who are 18 years of age or over.
2. All completed and submitted online surveys will be entered into the prize draws and entry is restricted to one per person.
3. The winners will be drawn at random from all eligible entries received by 23.59 of the closing date of the online surveys.
4. To be entered in the prize draws, entrants must complete the online surveys and provide contact details (e-mail address) at the end of survey. These details will only be used for the prize draws.
5. Late, illegal, incomplete or corrupt surveys will not be entered into the prize draws. No responsibility can be accepted for lost surveys and proof of transmission will not be accepted as proof of receipt.
6. The winners will be notified by e-mail within 30 days of the closing date of the prize draws. To claim your prize you must respond to the e-mail within 10 days of the notification e-mail being sent. Failure to claim the prizes within the specified time shall result in a further draw taking place and a new winner being selected.
7. If you win the prize, you agree to the research team posting your display name on a winner announcement. This will be displayed on a thread of the beautyheaven forum.
8. There are eight cash prizes: AUD\$25 for each winner. Please note that all prizes will be transferred to the winners via Internet Banking. In order to receive the prize money, winners must provide bank account details.

To be eligible to win one of eight cash prizes, please provide your e-mail address in the box below.

Please click on the SUBMIT button. Your responses will be directly downloaded to the linked database and remain anonymous.

SUBMIT

Appendix 3.3: Measurement items adapted from previous studies

Measurement items	Adopted/ Adapted	Hypothesis	Previously used
Knowledge			
exchange useful beauty information (Gruen, et al., 2006)	Adapted	H1a, H1b	-
exchange my skills about tips and how-tos (Ridings, et al., 2002)	Adapted	H1a, H1b	Hsu, Ju, Yen, and Chang (2007); Wu and Sukoco (2010)
exchange tips and how-tos based on my own experiences (Lee, 2001)	Adapted	H1a, H1b	Yang and Chen (2007)
exchange successful and failure stories of my product experiences (Lee, 2001)	Adapted	H1a, H1b	Yang and Chen (2007)
discuss the best alternatives available in a product category (Bearden, Netemeyer, & Teel, 1989)	Adapted	H1a, H1b	Mangleburg, Doney, and Bristol (2004)
Social bonds			
have close social relationships with other members (Chan & Li, 2010)	Adapted	H2a, H2b	-
know more friends within the forum (Chan & Li, 2010)	Adapted	H2a, H2b	-
feel as if some members are my close friends (Koh & Kim, 2003)	Adapted	H2a, H2b	-
maintain close social relationships with some members (Chiu, et al., 2006)	Adapted	H2a, H2b	-
feel that my participation is important to other members (Chan & Li, 2010)	Adapted	H2a, H2b	-
Enjoyment			
is enjoyable (Koufaris, 2002)	Adapted	H3	-
is interesting (Koufaris, 2002)	Adapted	H3	-
is exciting (Koufaris, 2002)	Adapted	H3	-
is entertaining (Leung & Wei, 1998)	Adapted	H3	-
lets me have a good time (Leung, 2001)	Adapted	H3	-
Self-development			
develop my skills and abilities (Oreg & Nov, 2008)	Adapted	H1a	Noy et al. (2010)
improve my expertise (Oreg & Nov, 2008)	Adapted	H1a	Noy et al. (2010)
learn new tips and how-tos (Oreg & Nov, 2008)	Adapted	H1a	Noy et al. (2010)
learn about the latest beauty trends (Hennig-Thurau & Walsh, 2003)	Adapted	H1a	-
find out about which products and topics are popular (Hennig-Thurau & Walsh, 2003)	Adapted	H1a	-
Reputation			
be recognised for my expertise (Oreg & Nov, 2008)	Adapted	H1b	Noy et al. (2010)
be considered as a beauty guru (Oreg & Nov, 2008)	Adapted	H1b	Noy et al. (2010)
build my reputation as a beauty guru (Oreg & Nov, 2008)	Adapted	H1b	Noy et al. (2010)
gain respect from other members (Kankanhalli, Tan, & Wei, 2005)	Adapted	H1b	He and Wei (2009)
be seen as trustworthy (Hsu, et al., 2007)	Adapted	H1b	-
Problem solving support			
other members would help me if I had a similar	Adapted	H2a	Chiu et al. (2006); Chan and

problem (Wasko & Faraj, 2005)			Li (2010)
there are several members I trust to help solve my problems (Williams, 2006)	Adapted	H2a	Ellison et al. (2007)
other members would give advice to help solve my problems (Hennig-Thurau, et al., 2004)	Adapted	H2a	-
there are members I can turn to for advice about the right solutions for me (Williams, 2006)	Adapted	H2a	Ellison et al. (2007)
I could find other members to help solve my problems when I need it (Frenzen & Davis, 1990)	Adapted	H2a	Bansal and Voyer (2000)
Dissonance reduction after purchase			
I have made the right product choice (Hennig-Thurau & Walsh, 2003)	Adapted	H2b	-
I am not the only one who has a certain problem with the product I bought (Hennig-Thurau & Walsh, 2003)	Adapted	H2b	-
I really need the product I bought (Sweeney, Hausknecht, & Soutar, 2000)	Adapted	H2b	-
I have done the right thing in buying a particular product (Sweeney, et al., 2000)	Adapted	H2b	-
buying a certain product is a wise decision (Sweeney, Soutar, & Johnson, 1996)	Adapted	H2b	-
Relaxation			
is a pleasant break from my day (Leung, 2001)	Adapted	H3	-
relaxes me (Leung, 2001)	Adapted	H3	-
helps me feel less tense (Leung, 2001)	Adapted	H3	-
relieves boredom (Leung & Wei, 2000)	Adapted	H3	-
allows me to get away from pressures and responsibilities (Leung, 2001)	Adapted	H3	-

Source: Developed for this research